

Community Practice Environment Initiative

Environmental Scan Summary

Overview

The Ontario College of Pharmacists launched the [Community Practice Environment Initiative](#) to better understand confirmed and potential barriers to professional autonomy and patient safety in community pharmacy through thoughtful, respectful and meaningful collaboration and engagement with pharmacy stakeholders.

To move this work forward, the College established a Community Practice Environment Advisory Group that comprises of community pharmacy owners/operators, association representatives, Designated Managers, staff pharmacists and pharmacy technicians, and patients.

The Advisory Group will advise on the development of essential principles of shared accountability. These principles are intended to guide the development of specific solutions and strategies for the sector in order to further strengthen the quality and safety of pharmacy care in the province, and position it for ongoing success as pharmacy plays an increasingly important role in the health of our community and performance of our health system.

This document provides the Community Practice Environment Advisory Group with information on what the College has learned from medication safety and regulatory data, heard from registrants about the community practice environment, and what is known about the community practice environment in other jurisdictions. The highlights provided here give Advisory Group members a foundation of understanding to inform the discussion at the meetings.

The information presented below is one source of information that the Advisory Group will consider. Other sources of information include insights provided through focus groups that have been conducted with pharmacy patients and registrants, and through the results of a survey targeted to all community pharmacy professionals in Ontario.

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1. Feedback from Pharmacy Professionals

Over the past few years, the College has conducted a number of engagement activities with registrants including Regional Meetings, open consultations and informally through direct communication and dialogue related to various key initiatives and programs designed to promote safe, quality pharmacy care. One of the common themes in the feedback the College has consistently received through these engagement activities is related to the community pharmacy practice environment.

Specific concerns that have been raised by registrants include workload and other pressures to meet operational expectations and the impact this has on professional autonomy and registrants' ability to meet practice expectations. This feedback is now being expressed in nearly every consultation exercise.

Below is a chronological summary of the College's public consultations that received a significant number of comments related to the community practice environment.

1.1 Exemptions and Exclusions under the Employment Standards Act

In December 2017, and at the request of the Ministry of Labour, the College sought public input to include in a formal written submission to the Ministry of Labour as part of a government consultation on exemptions and exclusion provisions for pharmacists under the *Employment Standards Act, 2000 (ESA)*.

The question was whether the exemptions in the ESA should be retained for pharmacists. These include exemptions pertaining to: Hours of work and eating periods; Overtime pay; Minimum wage; Public Holidays; Vacation with Pay; and, Personal Emergency Leave (in cases where taking personal emergency leave would constitute an act of professional misconduct or a dereliction of professional duty).

The [College received 383 responses](#) that highlighted how pharmacists are rushed while providing pharmacy services, are under pressure to meet financial performance targets set by the employer, and do not consistently get to take breaks to eat or use the washroom. The short-term effect of this on decision-making along with the longer-term effects of long hours with minimal breaks and limited vacation opportunities increase the potential for burnout.¹

A review of all responses show there is concern amongst respondents that fatigue resulting from long hours with minimal or no breaks could lead to medication errors. The respondents displayed a heightened concern for the impact this could have on patient safety.

1.2 Expanding Scope of Practice

In October 2019, the [College held a public consultation](#) on proposed amendments to the *General Regulation 202/94 of the Pharmacy Act, Part VII.3 (Controlled Acts)* that would authorize pharmacy professionals the expanded scope to:

1. Administer the flu vaccine to children as young as two years old;
2. Renew prescriptions in quantities of up to a 12-month supply;

¹ Hall, L., Johnson, J., Watt, I., Tsipa, A., and O'Conner, D. (2016). Healthcare staff wellbeing, burnout and patient safety: A systematic Review. *PLOS One*, 11(7).

3. Administer certain substances by injection and/or inhalation for purposes that are in addition to patient education and demonstration.

[Out of 195 responses](#) posted on the OCP website, 25% expressed concern about staffing levels and being overworked. There was recognition that expanding scope would affect the existing workflow in community pharmacies, and that policies would need to be in place to ensure pharmacists are supported in making changes to workflows before expanded scope could be implemented. It was strongly suggested that the College play a role in addressing systemic issues related to understaffing, increasing workloads, distractions and disruptions to the workflow.

Registrants commented that a lack of time to properly assess and provide expanded scope pharmacy services was connected to an increasing risk that errors would be made while pharmacy professionals rush to meet competing priorities and requirements.

It was also suggested that the College consider mandating minimum staffing requirements, and that these should be based on the pharmacy services provided in a given pharmacy with consideration to ratios between pharmacists, pharmacy technicians and pharmacy assistants.

1.3 Regional Meetings

From April to June 2019, the College hosted Regional Meetings in eight cities across the province as well as through a webcast. A total of 435 registrants attended. The meetings were designed to give pharmacy professionals in-person updates on important College work and events affecting the profession of pharmacy. At each meeting attendees were asked to reflect on:

- a. What is needed, or what is already in place, to support a safety culture and quality culture in your pharmacy?
- b. What barriers prevent or challenge the development of a safety culture and quality culture in your pharmacy?

Attendees provided the following feedback:

- Work volumes and staffing levels are barriers.
- There is a fear of punishment that keeps pharmacy professionals from speaking up about safety and quality care concerns.
- Corporate pressures to meet quota/financial performance targets affect the job security of pharmacy professionals, and can conflict with professional responsibilities to patients
- Time is needed to report medication incidents; the overall lack of time available, combined with a fear of punishment for errors, means open reporting is not yet fully embraced amongst the profession.
- Pharmacists and Pharmacy Technicians working as a team would support a safety and quality culture. This rests on having clear roles, the ability to communicate well, and trust each member of the team.
- Emphasizing quality using a 'just culture' approach that does not focus on blame and encourages open sharing and learning would support a quality culture. Having a culture of blaming, shaming and fear is a barrier to a safety and quality culture in community pharmacy.

1.4 Minor Ailments Registrant Feedback Survey

In January 2020, the College provided registrants an opportunity to provide feedback on a draft list of minor ailments to be considered as part of the Expanded Scope of Practice provisions outlined above in section 1.2. This registrant survey asked a number of questions, and included 2 questions seeking insight from registrants on risks and opportunities to mitigate these risks:

- What risks do you believe the College should be aware of while drafting the regulations for expanded scope on minor ailments?
- How do you feel these risks could be mitigated?

[The College received a total of 818 responses](#)², 483 of which responded to the above questions by commenting on the risks associated with various practice environment realities and the effect this could have on implementation. Related themes included:

- Staffing, time and workload concerns were the second most frequently identified risk theme for the College to be aware of when drafting minor ailments regulations
- Staffing requirements (i.e. minimum staffing requirements, mandatory technicians, differentiation between dispensing and prescribing pharmacists) was the second most frequently identified theme for risk mitigation
- Risks to implementing expanded scope included conflicts arising from business/corporate interests affecting implementation. This was the third most frequently identified risk theme.
- Pharmacist burnout was also specifically mentioned as a risk in a few comments.

In February 2020, the College sought feedback from a group of patients and caregivers that work to bring the patient voice to health regulation in Ontario known as the [Citizen Advisory Group](#) (CAG). The CAG was presented with a number of questions about their use of pharmacy services and were able to provide their feedback on the draft list of minor ailments being considered as part of the Expanded Scope of Practice provisions. [The report](#)³ from this meeting shows that members of CAG identified concerns about the limited time they have with their pharmacist, and questioned whether pharmacists would have time to conduct a proper assessment in order to treat minor ailments at the pharmacy. There was a general sense that pharmacists are overburdened.

The College posted the [proposed regulation amendments](#) to enable prescribing for minor ailments for an [open consultation](#) between March 24 - May 22, 2020, so that registrants, stakeholders, patients and the public could provide comment and feedback. A total of 201 comments were received. Consistent with earlier consultations, concerns were expressed by some respondents about the current practice environment. Approximately 22% of respondents expressed concerns regarding increased workload, increased wait times for other patient care activities, increased stress and propensity for errors. Of these respondents, 51% were pharmacists, 23% were members of the public, 8% were “other”, 8% were pharmacy assistants and 8% were applicants. Comments about the practice environment related to the importance of avoiding pressure to meet certain quotas or financial performance metrics, and noted that adequate staffing is imperative to allow for appropriate time and focus to perform patient assessments and consultations to safely implement prescribing for minor ailments in pharmacy.

² See pg. 103 in the linked Board materials.

³ See pg. 8 in the linked meeting report

1.5 Assurance and Improvement in Medication Safety (AIMS) Program Data

The [AIMS Program](#) is a standardized medication safety program that supports continuous quality improvement and puts in place a mandatory consistent standard for medication safety for all pharmacies in the province. Its goal is to reduce the risk of patient harm caused by medication incidents in, or involving, Ontario pharmacies.

The program enables practitioners to learn from medication incidents, and better understand why they happen and how they can be prevented. Utilizing both a preventative approach through proactive reviews of work processes to identify areas of risk and retrospective reviews of specific medication incidents, pharmacy professionals will be able to identify learnings that will help prevent incidents and enhance patient safety.

Medication safety data anonymously reported by pharmacy professionals through the AIMS Program is providing important insights into various causal factors that may be contributing to errors and near misses. In the first [AIMS data snapshot](#) published last September along with the inaugural [expert bulletin](#), staffing, workload and environmental factors were the single most commonly noted contributors, comprising 23.6% of the 4,426 incidents reported by on-boarded community pharmacies between Feb 1, 2018 and May 31, 2019.

The most recent data extraction on factors that contributed to reported incidents and near-misses between Feb 1, 2018 and June 30, 2020 shows that staffing, workload and environmental factors continue to be the single most commonly noted contributors, comprising 24.4% of the 17,940 incidents reported by on-boarded community pharmacies.

2. Jurisdictional scan

Several jurisdictions have sought information from pharmacy professionals to learn about the realities of everyday practice. Some have convened seminars or summits, while others have conducted surveys and opinion polls. Findings from these activities in the UK, US and Canada are summarized in the sections below.

2.1 General Pharmaceutical Council (GPhC)(UK)

Activity has been underway in the United Kingdom (UK) related to the practice environment, and a summary is provided about outcomes of a seminar the GPhC hosted and subsequent guidance that was developed.

The GPhC sets standards for registered pharmacies in the UK, with the standards grouped under 5 principles.

Principle 2 of the [Standards for Registered Pharmacies](#) reads:

- Staff are empowered and competent to safeguard the health, safety and wellbeing of patients and the public.

The Standards under Principle 2 read:

- 2.1 There are enough staff, suitably qualified and skilled, for the safe and effective provision of the pharmacy services provided
- 2.2. Staff have the appropriate skills, qualifications and competence for their role and the tasks they carry out, or are working under the supervision of another person while they are in training
- 2.3 Staff can comply with their own professional and legal obligations and are empowered to exercise their professional judgement in the interests of patients and the public
- 2.4 There is a culture of openness, honesty and learning

- 2.5 Staff are empowered to provide feedback and raise concerns about meeting these standards and other aspects of pharmacy services
- 2.6 Incentives or targets do not compromise the health, safety or wellbeing of patients and the public, or the professional judgement of staff

Professionalism Under Pressure Seminar

In response to concerns expressed by pharmacists through a [Patient Safety Survey](#)⁴ conducted by the Pharmacist Defence Association, as well as cases brought to the regulator's attention through direct reports and media coverage, the GPhC wanted to better understand what was going on within community pharmacy that was affecting the practice environment.⁵ This was the focus of the Professionalism Under Pressure Seminar.

Over 60 delegates, including individual pharmacy professionals in a range of roles, and leaders from organizations both within and outside pharmacy, came together in central London on October 18, 2016 for a GPhC seminar on professionalism under pressure.⁶

A summary of the presentations and discussions highlighted the following:

- There is a noted tension between professionalism and commercialism across healthcare provision as a whole.
- There is an opportunity to learn from organizations that are reducing stress among staff and improving patient outcomes. Specifically, look at organizations that are developing supportive relationships and resolving conflict.
- The experience of health professionals employed by the NHS (including pharmacists⁷) is collected every year through the NHS staff survey. Analysis of the 2016 survey provided insight on how the practice environment can have an impact on patient care:
 - When staff report high levels of stress, the indicators used by the Care Quality Commission show poorer care quality and worse financial performance.
 - There is a clear correlation between level of staff engagement and a number of critical and wide ranging measures related to patient mortality, care quality, infection rates, and financial performance.
- Delegates provided these opinions through 4 workshops:
 - Current culture in pharmacy can lead professionals to experience fear and anxiety
 - Targets that constrain professional judgement/behaviour without putting patients first should be removed
 - Pharmacy professionals need to become proportionately less risk averse as inappropriate targets are removed
 - Flexible targets should be permitted
 - Emphasis across pharmacy needs to be on care. Focus must always be on the patient and on quality care.

⁴ The PDA now conducts this survey on an annual basis. Pharmacists are asked to report on their pharmacy's performance on 6 commitments outlined in their [Safer Patients Charter](#)

⁵ General Pharmaceutical Council (Jun 2016). Blog: Professionalism under pressure. Accessed July 30, 2020 from <https://www.pharmacyregulation.org/regulate/blog/professionalism-under-pressure>

⁶ General Pharmaceutical Council (Oct 2016). Seminar on professionalism under pressure – Event Report. Accessed March 12, 2020 from https://www.pharmacyregulation.org/sites/default/files/professionalism_under_pressure_18_october_2016_event_report.pdf

⁷ It is not possible to determine the total number of pharmacists who completed the survey, nor their practice location.

- Leaders within pharmacy employers should work to bridge gap between staff and management in pharmacy
- It is everyone's responsibility, including educators, companies, regulators and professionals to balance professional and commercial pressures.

These points are helpful context for what has been observed and discussed in another jurisdiction. They also reflect the experience of health care provision and pharmacy practice within the UK, which employs pharmacists directly as well as through privately-owned community pharmacies. Although the systems of care differ from Ontario, the opinions provided by seminar attendees align with what registrants have expressed about financial performance targets, staffing levels, and the primacy of patient safety.

This seminar identified the following key priorities for the GPhC and the pharmacy sector.

1. Developing a culture within pharmacy which supports and empowers professionals to successfully balance pressures so they can act in the best interests of their patients, and to feel confident in raising concerns if quality of care is compromised.
2. Improving communication between all levels of an organization and developing a shared focus on continually improving the care provided to patients and the public.
3. Moving away from inappropriate targets and making sure that any targets focus on quality of care and patient needs.

Overall, there was a recognition at the GPhC seminar that the culture in pharmacy is changing and that alongside the regulator, pharmacy owners, corporate boards, pharmacy leaders, and those who commission and negotiate community pharmacy services have a responsibility to support a culture of safe, quality patient care.

It is this view of a shared responsibility that underpins the OCP's Community Practice Environment Initiative.

[Guidance for Pharmacy Owners](#)

In 2017, the GPhC released for consultation a guidance for pharmacy owners that outlines how they should meet Principle 2 of the Standards along with a framework outlining changes GPhC would make to registration and inspection processes. In June 2018, the CPhC released the final approved [Guidance to ensure a safe and effective pharmacy team](#).

The guidance provides clear direction to pharmacy owners about their responsibilities and accountabilities related to staffing. It states that a pharmacy owner's first responsibility is to ensure patient safety, and that in practice, this includes:

- each pharmacy has enough skilled and qualified staff to provide safe and effective pharmacy services
- staff can meet their professional obligations and can raise concerns in an environment which encourages openness, honesty and continuing development

The guidance clarifies that the pharmacy owner is accountable for ensuring that unregistered staff (e.g. pharmacy assistants, delivery personnel) are competent and capable for the role by assessing skill and ensuring they are enrolled in a training program within 3 months of starting their role if they do not have the appropriate competency level. It also affirms that registered pharmacy professionals must delegate tasks only to people (registered and unregistered staff) who are competent and appropriately trained or in training and must also exercise proper oversight of delegated tasks.

The guidance is provided in 4 domains:

1. Setting staffing levels and responding to concerns about patient safety
 - Provides owners with a list of considerations when assessing staffing needs
 - Risk assessments are to include procedures for judging staffing and skill mix needs
 - Staffing and skill mix are to be actively reviewed, communicated to staff, and are to include contingency plans for short- and long-term planned or unplanned absences
 - Staff know how to raise concerns without fear, are encouraged to raise concerns that may affect patient safety, records are kept that show the steps taken to deal with concerns raised, and feedback is provided to staff about how concerns have been dealt with
2. Leadership and management roles
 - Owners are required to ensure that managers (who may or may not be pharmacy professionals in the UK) understand the legal and regulatory framework within which the pharmacy must operate, as well as the standards the GPhC has set
 - The primacy of patient safety must be maintained in management decision-making
 - Staff understand the procedures in place, as well as the duties and responsibilities of each member of the pharmacy team
 - Managers understand how to appropriately manage personal or organizational goals, incentives or targets without compromising the professional judgement of staff to deliver safe and effective care
3. Maintaining and person-centred environment
 - Important that pharmacy team demonstrates attitudes and behaviours that put patients at ease, using a compassionate approach that is adapted to each patient
 - Staff help patients make informed choices about care, adjust style of communication, use safeguarding techniques to support the vulnerable, maintain up-to-date records, and respect diversity and cultural differences
 - Confidentiality and rights to privacy are maintained by ensuring discussions with patients are not overheard.
4. Knowledge, Skills and competence
 - 4.1. Initial education and training requirements
 - Owners are accountable for the competencies of their unregistered staff and should understand the options for relevant training and ensure unregistered staff with competency gaps are registered in a training program within 3 months of starting their role in the pharmacy
 - Orientation for new staff is specific to the role, competencies of new staff are assessed and specific minimum competencies are set in the guidance document for unregistered staff involved in dispensing medications⁸
 - 4.2. Learning and Development
 - Provides owners with direction about assessing learning and development needs and developing plans for each role within the pharmacy
 - Owners should encourage and enable all staff to reflect on their performance, knowledge and skills to identify learning and development needs
 - Staff work within the limits of their competence, and refer to other staff when appropriate

⁸ See pg. 14 of the [Guidance to ensure a safe and effective pharmacy team](#)

The requirements outlined in this guidance document have been incorporated into the inspection criteria the GPhC uses when inspecting registered community pharmacies.

2.2 Canadian Pharmacists Association (CPhA)

Over 100 Canadian pharmacy leaders participated in the CPhA Pharmacy Thought Leadership Summit on June 23-24, 2016 to discuss the barriers that pharmacists and pharmacy technicians face in working to their full scope in everyday practice, and engage in identifying goals and actionable solutions to help move the profession forward.

The goal was to identify 3 priority areas for the CPhA's Pharmacy Thought Leadership Initiative and develop a set of proposed 10-year strategic goals and broad actions that CPhA might take forward with partner organizations.

The 3 priority areas were:

1. Technology and Workplace Environments:
 - Ensure that all available technology and health informatics solutions are used to support role evolution
 - As shifts in pharmacy professional roles occur, capacity, deployment of resources and workplace settings must meet the requirements of changing business and service models to support role evolution
2. Payers and Policy Makers:
 - Payers and policy makers should explore alternative payment and delivery models
3. Research
 - Utilize evidence-based research to understand the return on investment for professional pharmacy services
 - 1. Ensure that remunerated pharmacy services are supported by evidence demonstrating positive health, societal and economic outcomes
 - Evaluation plans should be in place to measure outcomes following service design and implementation

The CPhA discussion on priority #1 focused on workflow, workspace design and the use of technology to enable these changes. However, the practice environment concerns that the OCP has received from registrants extends beyond workflow and design issues and connects to a broader observation about the impact of staffing and resourcing levels on increased risks associated with care delivery to patients.

Of note during the Summit, an audience poll asking, “**What is the biggest factor influencing the care and services you provide?**” resulted in the majority of respondents choosing “***A work environment that prevents me from working to the full extent of my scope,***” as the biggest factor.

2.3 Ontario College of Pharmacists (OCP)

The Ontario College of Pharmacists (OCP) has a mandate to serve and protect the public interest by ensuring that pharmacy professionals provide ethical, safe and quality professional services, and that pharmacies operate in a way that supports the safe provision of professional services. The development of quality indicators and the publication of regulatory data insights are examples of ways that OCP provides pharmacy professionals and the public with information to support the delivery of ethical, safe and quality care to pharmacy patients.

Quality Indicators for Pharmacy

In 2018, OCP and Health Quality Ontario⁹ co-hosted a [Quality Roundtable](#) to develop guiding principles for establishing a set of quality indicators for pharmacy. The objectives of the roundtable were to achieve a consensus on overarching goals for quality indicators, identify areas to measure, and to review indicator selection criteria and principles for indicator implementation. An Expert Panel comprised of patients, practicing pharmacists, researchers, government and associations was formed following this roundtable. The Expert Panel used a modified Delphi process (including independent rating of indicators and consensus discussions), complemented by feedback from patients and pharmacy professionals, to select a set of quality indicators for public reporting.¹⁰

In June 2019, the first set of [quality indicators for community pharmacy](#)¹¹ were established for the following measurement areas:

Patient/Caregiver Experience and Outcomes

1. My pharmacist helped me understand why I am taking each of my medications
2. My pharmacist made sure I understood how to take my medication properly
3. My pharmacist made sure I understood what results I might expect from my medication, including any side effects or drug/food interactions that may occur
4. My pharmacist helped me understand how to know if my medication is working

Appropriateness of Dispensed Medications

5. Percentage of patients who were newly dispensed an opioid prescription greater than 50 mg morphine equivalents per day

Medication-Related Hospital Visits

6. Hospital visits for opioid poisonings among patients that are actively treated with an opioid prescription

Transitions of Care

7. Percentage of eligible people who have had a medication review within 7 days of discharge home from hospital

Provider Experience and Engagement

The Expert Panel recommended that this measurement area should undergo further review and refinement. This work will progress with a working group composed of pharmacy professionals and other key stakeholders.

In the fall of 2019, the College engaged a technical working group of health system, pharmacy and data experts to develop the technical specifications for indicators 5, 6, and 7. The College has been working with the Ministry of Health and other key stakeholders to obtain the data as outlined in the technical specifications, which will be ready to report publicly in Fall 2020. Indicators 1-4 are being validated with patients and caregivers, with plans for data collection anticipated to begin in 2021.

⁹ Now known as Ontario Health, Quality

¹⁰ [Expert Panel Report on Quality Indicators for Pharmacy](#)

¹¹ The Quality Indicators for Pharmacy webpage provides periodic updates on the progress of this initiative.

Insights from Regulatory Data

A recently published article explores the insights that can be gained about the developmental needs of community pharmacy professionals from analyzing data the Ontario College of Pharmacists collects related to registration, quality assurance, and conduct matters.¹² The analysis was motivated by the question, “What if different activities such as competence assessments show patterns similar to site assessments or complaints and conduct issues?”

This research used aggregated, de-identified data from January 2018 to December 2019 from 4 datasets for analysis:

1. Jurisprudence exam data for pharmacist (n=1183) and pharmacy technician (n=786) applicants
 - This is an entry-to-practice requirement for registration as a pharmacist or pharmacy technician in Ontario
 - It assesses a candidate’s knowledge of federal and provincial legislation affecting pharmacy practice in Ontario
2. Practice Assessment data for pharmacists (n=2319) and pharmacy technicians (n=291)
 - These assessments are conducted by an OCP Practice Advisor using a defined set of criteria to evaluate whether an individual pharmacy professional is meeting the profession’s standards of practice.
 - The total number of assessments for pharmacy technicians are lower because practice assessments began in 2019 on a voluntary basis.
3. Operational Assessment data for community pharmacies (n=2024)
 - These Assessments are conducted by an OCP Operations Advisor using a defined set of criteria to ensure pharmacies are adhering to standards and have the proper processes and procedures in place for providing safe and quality care.
4. Conduct data for pharmacists (n=624) and pharmacy technicians (n=16)
 - The Inquiries, Complaints and Reports Committee (ICRC) oversees all complaints and investigations into a professional’s conduct and competence. Small group panels meet to review case submissions from complainants and pharmacy professionals.
 - Panels identify and document specific competencies that they seem as gaps or areas of opportunity for the practitioner involved in the case.

The top five gaps were extracted by analyzing each dataset and three common themes were revealed across all datasets: patient assessment and safety; documentation; and ethical, legal, and professional responsibilities.

Pharmacy practice has been evolving over the past half century to include an increased attention to patient-focused care, rather than mainly being a product-focused drug distribution practice. Documentation represented the largest gap area in practice assessments for both pharmacists and pharmacy technicians. Gathering and maintaining accurate and comprehensive information about patients was also among the top issues identified in the operational assessment data. The practice environment, systems and technology, as well as workflow have not yet evolved enough to facilitate and enable patient care documentation and charting.

¹² Morris, K. & Arzoomanian, A. (2020). Insights from Regulatory Data on Development Needs of Community Pharmacy professionals. *Pharmacy*, 8, 111. <https://www.mdpi.com/2226-4787/8/3/111/htm>

The researchers noted that information gathering for patient assessment requires interacting with the patient or their agent to gather relevant information. Although innovative community pharmacy workflow designs have emerged mostly in independently owned pharmacies, the current workflow design in many medium-to-high-volume community pharmacies places the pharmacist near the end of workflow at which point the prescription has already been processed and prepared. For the pharmacist to conduct a therapeutic check of appropriateness, the patient assessment often requires obtaining relevant information from the patient or their agent which is not well-facilitated or encouraged by current workflow setups and environments.

There has been limited research into the reasons why the areas of patient assessment, specifically gathering information for assessment, as well as documentation continue to be challenges in community pharmacy practice. In an effort to identify barriers to pharmacy professionals meeting standards of practice for patient assessment and documentation, all factors including individual competence, the practice environment and workflow, as well as pharmacy management systems and technology need to be considered.

Another theme revealed primarily in the conduct data was quality and patient safety. Many of the cases in this analysis were the result of medication incidents affecting patient safety. The contributing factors to these incidents consisted of themes identified in the other data sources. The researchers observed that there is often a link between whether the pharmacy or pharmacist met standards in patient assessment and whether a medication error occurred. Documentation according to standards can also play a key role in preventing medication incidents. Pharmacy operations that support effective documentation of pertinent information in the patient record for continuity of care could have avoided some of the quality and safety issues. In addition, organized staffing and workflow which enable pharmacists to meet the standards of practice can prevent certain medication incidents as part of a systems focused quality improvement process.

2.4 Nova Scotia College of Pharmacists (NSCP)

Building off of a recognition that pharmacy stakeholders in Canada and internationally have been grappling with addressing numerous problems affecting pharmacy practice, and that despite previous attempts to understand and develop a way forward the pharmacy profession had not yet established an effective response, the NSCP convened a National Summit on Wicked Problems¹³ in Community Pharmacy April 11-12, 2018.

The Summit gathered behavioural science researchers and representatives from key pharmacy stakeholders to explore the contributing factors underpinning the wicked problems facing community pharmacy through a behavioural science lens. The 120 attendees represented a cross-section of key stakeholder groups from all Canadian provinces, including: regulators, employers, researchers, educators, practitioners, members of a professional association, members of government, members of patient safety organizations, and observers (e.g., research staff, trainees).

Results of a survey that was conducted before the Summit identified that attendees felt the following changes are needed for the pharmacy profession:

- 1) greater collaboration among stakeholders
- 2) increased pharmacist confidence in applying and practicing their full scope
- 3) improved technology and access to patient records

¹³ Wicked problems are those that are seemingly impossible to solve because of incomplete, contradictory, and changing requirements. The complexity of these problems dictates that there will be no one solution.

- 4) greater synergy between business models and the delivery of patient care
- 5) empowering pharmacists as healthcare professionals
- 6) improving staffing models and workloads

Observations from the summit included:

- There is unrealized pharmacist potential in addressing patients' health care needs
- Practitioner reports of worsening workplace conditions note that these conditions are not conducive to meeting professional practice standards
- Pharmacy employers cite issues of disengagement and waning professionalism. This is characterized by:
 - Increased failure to put patients' interests first
 - Inconsistencies in pharmacists' ability to bring their "professional best" to every patient encounter

Several presentations were made. A few are highlighted below as they relate to the issues the Community Practice Environment Advisory Group will be considering.

1. Dr. Ross Tsuyuki's research - demonstrated that pharmacists practicing to the full extent of their competencies not only results in improved patient care but can also lead to improvements in cost-effectiveness of care provided.
2. Dr. Lisa Dolovich's research – highlights the opportunities to improve patient follow-up and counselling at every encounter and to move away from pharmacists delivering technical services, and towards those aimed at providing patient care and improving patient outcomes.
3. Dr. Kelly Grindrod's research - important role that workplace culture plays in developing pharmacy professionals, with many workplace norms devaluing expanded scope of practice activities and non-technical services of new pharmacy graduates.

One of the key takeaways from the summit was the creation of an inventory of issues. This inventory was expanded at the 2019 summit and provides NSCP with a visual that highlights the challenges and facilitators in the Nova Scotia context that have been identified.

2.5 Saskatchewan College of Pharmacy Professionals (SCPP)

In 2018, the Saskatchewan College of Pharmacy Professionals released a consultation paper discussing the development of a proposed "framework to enhance control of pharmacies by pharmacists and restore professional autonomy of pharmacists".¹⁴

The impetus for this framework was a stated concern that the balance within the relationship between pharmacy professionals and pharmacy owners and employers was shifting in a way that could compromise patient safety. Specifically, they noted that a changing pattern of pharmacy ownership with more corporate entities enforcing business-related demands on pharmacists has led to reduced professional autonomy that adds to the workplace stress currently felt due to higher prescription volumes, lack of breaks, workflow interruptions and staffing levels. The risk for dispensing errors due to this was a stated concern.

¹⁴ Saskatchewan College of Pharmacy Professionals (2018) Annual Report, p. 7. Retrieved July 10, 2020 from https://saskpharm.ca/document/4948/SCPP_AR_2018.pdf

The purpose of the framework is to describe strategies within the SSCP's mandate to rebalance the relationship between pharmacy professionals and pharmacy owners and employers so that:

1. [*The Pharmacy and Pharmacy Disciplines Act*](#)'s public policy purpose of control of pharmacy practice by pharmacists is fulfilled;
2. The professional autonomy of the pharmacist in the practice of pharmacy is restored; and,
3. Pharmacy practice and its capacity to safely meet patient needs remain viable.

The framework proposed the following strategies to address the stated purpose above:

- i. Re-submit new regulatory bylaws to authorize the Registrar to obtain evidence from pharmacy permit applicants that demonstrate pharmacist control over pharmacy practice in the pharmacy
- ii. Add to eligibility requirements for pharmacy managers a process to evaluate management competencies
- iii. As a permit requirement, proprietors will subscribe to a code of conduct in support of the professional practice of the pharmacists and pharmacy technicians within the pharmacy
- iv. Optimize the deployment of human resources in community pharmacy practice, especially the role of pharmacy technicians
- v. Move the prohibition on inappropriate unlicensed influence over pharmacy to bylaws expanded to include influence over pharmacy practice
- vi. Whistleblower protection for the reporters of inappropriate proprietor or other affiliated entity influence
- vii. A self-funding alternate dispute resolution process to resolve such reports
- viii. Amending the continuous quality assurance requirement for each pharmacy that can inform how these measures and other strategies affect patient and workplace safety.

Registered pharmacy professionals in the province who responded to this first consultation indicated significant support for all eight proposed strategies, though a second consultation with a Pharmacy Owners Council and the Pharmacy Association of Saskatchewan resulted in less favourable perspectives. SSCP engaged in a third round of consultations on proposed bylaw changes needed to support implementation of the above eight strategies. The framework and drafted bylaw changes were approved in principle by SSCP Council in May 2019.

The first initiative to move forward under the framework to enhance control of pharmacies by pharmacists and restore professional autonomy of pharmacists is mandatory training for pharmacy managers. This will use an approach similar to the [B.C. Community Pharmacy Manager Training Program](#) where a Canadian Council of Continuing Education in Pharmacy (CCCEP) accredited program is used with a module added providing specific context for community pharmacy in Saskatchewan. The bylaw revisions that will support the implementation of mandatory training for pharmacy managers has been submitted to the Saskatchewan Ministry of Health. If approved, it is anticipated that mandatory training requirements will begin implementation in 2022.

The remaining 7 strategies within the framework have been included in the SSCP's 2020-2024 strategic plan.

2.6 American Society for Health-System Pharmacists (AHSP)

Surveys conducted with pharmacists and patients in the United States provide insight into ways that stress and burnout is affecting the practice of pharmacy across their health systems.

From July to September 2019, ASHP conducted a [Well-Being and Resilience Survey](#) to assess the pharmacy workforce's awareness and perception of clinician burnout. Highlights from the survey's findings include:

- 67% percent of pharmacist respondents reported job-induced stress.
- Pharmacists in the profession for 11-19 years reported the most stress (77%), followed by those practicing for 20-29 years (73%). Sixty-eight percent of those in the profession 6-10 years reported job-induced stress, as did 56% of those with 30+ years.
- 47% percent of the survey respondents reported experiencing burnout. Less than half (45%) were comfortable telling their supervisors about feeling burned out.

The AHSP commissioned an [opinion poll](#) in May 2019 to assess the general public's awareness of health practitioner burnout. More than 2000 US adults responded, and highlights from the poll's findings include:

- 25% are concerned that the pharmacists who take care of them, whether in a community drugstore or a hospital, are suffering from burnout
- 47% said they would avoid asking questions if they thought their healthcare professional appeared to be suffering burnout because they did not want to add to the stress
- 60% of poll responders said they can tell when healthcare providers are tired
- 56% said they knew when the providers are rushed
- 77% responded that when they see their clinician is feeling burnt out, they become concerned about their own care and safety.

3. Evidence Highlights

A search of the existing literature provides some insight into factors that could affect the safety and quality of care provided in community pharmacies. There is some literature on the prevalence of burnout amongst pharmacists, provider well-being and its effects on patient outcomes, and the concept of psychological safety and the effect on physical safety. These are summarized in the sections below.

3.1 Burnout

The prevalence of burnout among Ontario or Canadian community pharmacists has not been studied directly. Two studies were found that looked at assessing the prevalence of burnout within community pharmacy practice, with sample populations from France and North Carolina, USA respectively.

Balayssac et al. (2017) examined the prevalence of burnout, associated comorbidities and coping strategies amongst pharmacy teams (pharmacists and pharmacy technicians) in French community pharmacies.¹⁵ The survey assessed the prevalence of burnout (Maslach Burnout Inventory questionnaire), anxiety, depression and strategies for coping with work-related stress. 1322 responses were received from pharmacists and pharmacy technicians practicing in community pharmacies. The results showed that:

- Burnout syndrome was detected in 56.2% of respondents and 10.5% of them presented severe burnout syndrome.

¹⁵ Balayssac D, Pereira B, Virot J, Collin A, Alapini D, Cuny D, Gagnaire JM, Authier N, Vennat B. (2017). Burnout, associated comorbidities and coping strategies in French community pharmacies—BOP study: A nationwide cross-sectional study. *PLoS one*.12(8).

- Severe burnout syndrome was significantly associated with large urban areas and the number of hours worked.
- Depression and anxiety were found in 15.7% and 42.4% of respondents, respectively. These co-morbidities were significantly associated with severe burnout syndrome.

Kang et al. (2020) evaluated burnout risk among pharmacists across North Carolina's health system.¹⁶ Using a modified Maslach Burnout Inventory-Human Services Survey for Medical Professionals, responses were collected from 380 health system pharmacists.¹⁷ The study found that:

- 55.5% of participants were at risk for burnout
- 49.6% of participants scored high for emotional exhaustion
- Working primarily in a dispensing role and longer hours worked per week were associated with a significantly higher risk of burnout
- Higher workload (# of hours worked) was associated with higher levels of burnout
- Being aware of burnout resources significantly decreased risk of burnout

It is important to understand the affect burnout can have on a practitioner's ability to provide safe, quality care. The Institute for Health Care Improvement's [Triple Aim initiative](#) provides a framework for optimizing health system performance to (1) improve population health while (2) enhancing the patient experience and (3) using resources appropriately. This framework has since been augmented to consider a 4th aim – improving the work life of health care clinicians and staff – because the ability to meet the 3 aims of the Triple Aim initiative rests on the ability of clinicians and staff to deliver on these aims. Burnout is associated with lower patient satisfaction, reduced health outcomes, and it may increase costs.¹⁸ Therefore, burnout among the health care workforce threatens patient-centeredness and the Triple/Quadruple Aim.

3.2 Provider Experience and Patient Outcomes

In 2013, all 5300 pharmacists in BC were invited to complete a survey on practice setting and workplace conditions.¹⁹ With a 23% response rate (n=1241), pharmacists mostly disagreed with the statements that they had enough time for breaks or lunches or to do their jobs, as well as enough staffing support. Additionally, the researchers found that perceptions of their workplace environment were negatively associated with:

- workplace-imposed advanced service quotas for medication reviews, immunizations and prescription adaptations
- being employed at chain store pharmacies, compared to independent pharmacies or hospitals/long-term care settings
- Higher prescription volumes

¹⁶ Kang, K., Absher, R., and Granko, P. (2020). Evaluation of burnout among hospital and health-system pharmacists in North Carolina, *American Journal of Health-System Pharmacy*, 77(6), 441-448.

¹⁷ The sample population included all pharmacists, including those who work in community pharmacy settings as well as hospital pharmacy settings.

¹⁸ Bodenheimer T., Sinsky C. (2014). From triple to quadruple aim: care of the patient requires care of the provider. *The Annals of Family Medicine*, 12(6), 573-576.

¹⁹ Tsao, N., Gastonguay, L., & Marra, C. (2016). Factors associated with pharmacists' perceptions of their working conditions and safety and effectiveness of patient care. *Canadian Pharmacists Journal*, 149(1), 18-27.

A recent study published in 2020²⁰ provides some insight into the barriers to routine monitoring and follow-up reported by pharmacists in Canada. The researchers surveyed community pharmacists in Ontario providing medication reviews for patients with diabetes, as well as community pharmacists across Canada with a stated interest in diabetes care, to identify the most substantial barriers and enabling facilitators to routine monitoring and follow-up for people with diabetes. This study did not look at the effects of routine monitoring and follow-up on outcomes of patients with diabetes. Rather, it provides insight into pharmacist-reported barriers and facilitators to care provision. Of 7270 pharmacists sampled, 313 responded to the survey (4.76% response rate). The following were found to negatively influence the delivery of routine monitoring and follow-up:

- Lack of dedicated time for patient appointments
- Overwhelming number of competing priorities
- Insufficient reimbursement for the service, including the lack of personal financial compensation
- Insufficient recognition from professionals important to the pharmacist
- Lack of patient engagement and of understanding the pharmacist role
- Inadequacies in workflow
- Insufficient human resources
- Lack of access to labs and clinical data

This study found that overall the practice environment and the way pharmacist behaviour is reinforced can have a negative influence on the likelihood that routine monitoring and follow-up will happen for patients with diabetes.

There is a dearth of literature that investigates the effect of pharmacist burnout on patient outcomes. However, research has examined the relationship between physician and nurse burnout levels and patient outcomes. This is presented here to illustrate the significant impact of dissatisfaction and burnout on patient outcomes.

- Higher patient-to-nurse ratio is associated with patient urinary-tract infections and surgical site infections²¹
- Patient safety is threatened by nurse dissatisfaction; many nurses report that their workload causes them to miss important changes in their patients' condition.²²
- Physician burnout was associated with an increased risk of patient safety incidents and poorer quality of care due to low professionalism.²³

²⁰ MacCallum, L., Mathers, A., Kellar, J., Rouse-Grosman, J., et. al. (2020). Pharmacists report lack of reinforcement and the work environment as the biggest barriers to routine monitoring and follow-up for people with diabetes: A survey of community pharmacists. *Research in Social and Administrative Pharmacy*, (article in press).

²¹ Cimiotti, JP, Aiken, LH, Sloane, DM, & Wu, ES (2012). Nurse Staffing, burnout, and health care associated infection. *American Journal of Infection Control*, 40, 486-490.

²² McHugh MD, Kutney-Lee A, Cimiotti JP, Sloane DM, Aiken LH. Nurses' widespread job dissatisfaction, burnout, and frustration with health benefits signal problems for patient care. *Health Affairs (Millwood)*. 2011;30(2):202–210.

²³ Panagioti M, Geraghty K, Johnson J, Zhou A, Panagopoulou E, Chew-Graham C, Peters D, Hodgkinson A, Riley R, Esmail A. Association between physician burnout and patient safety, professionalism, and patient satisfaction: a systematic review and meta-analysis. *JAMA internal medicine*. 2018 Oct 1;178(10):1317-30

- Dissatisfied physicians are more likely to prescribe inappropriate medications which can result in expensive complications.²⁴
- Burnout also leads to lower levels of empathy, which is associated with worsened clinical outcomes for patients with diabetes.²⁵
- A systematic review and meta-analysis looked at the influence of burnout on patient safety by analyzing 21 studies, and concluded that there is a relationship between high levels of burnout amongst health professionals and worsening patient safety.²⁶
- A meta-analysis of 82 studies assessed the relationship between professional burnout and quality and safety in healthcare. Provider burnout showed consistent negative relationships with patient satisfaction and perceived quality of care, as well as perceptions of safety.²⁷
- A systematic review to determine whether there is an association between healthcare professionals' wellbeing and burnout with patient safety found that 16 out of the 27 studies measuring wellbeing found a significant correlation between poor wellbeing and worse patient safety. Additionally, 21 of the 30 studies measuring burnout found a significant association between burnout and patient safety.²⁸

3.3 Psychological Safety

Psychological safety is a feeling that individuals are comfortable expressing and being themselves, as well as comfortable sharing concerns and mistakes without fear of embarrassment, shame, ridicule, or retribution. It is recognized as part of successful patient safety and quality improvement processes. It is an especially important concept to consider when a hierarchy exists within an industry that is responsible for ensuring the safety of others. There is some literature looking at the effects of psychological safety on team dynamics and reporting errors in pharmacy, medicine, and aviation. These studies are summarized below.

Pharmacy

A 2011 study in community pharmacies in Great Britain looked at the psychosocial influences on the safety culture within their pharmacies.²⁹ The concept of a safety culture provides a mechanism for explaining safety-related behaviour in healthcare, and a positive safety culture supports safe patient care. Using a cross-sectional survey administered to a random sample of registered community pharmacists, researchers sought to measure the psychosocial influences on the safety culture by using the Effort-Reward Imbalance (ERI) indicator³⁰, the Job

²⁴ Williams ES, Skinner AC. Outcomes of physician job satisfaction: Williams ES, Skinner AC. Outcomes of physician job satisfaction: a narrative review, implications, and directions for future research. *Health Care Manage Rev.* 2003;28(2):119–139.

²⁵ Hojat M, Louis DZ, Markham FW, Wender R, Rabinowitz C, Gonnella JS. Physicians' empathy and clinical outcomes for diabetic patients. *Acad Med.* 2011;86(3):359–364.

²⁶ Garcia, CL, Abreu, LC, Ramos, JLS, de Castro, CFD, et. al. (2019) Influence of Burnout on Patient Safety: Systematic Review and Meta-Analysis. *Medicina*, 55, 553 <http://dx.doi.org/10.3390/medicina55090553>

²⁷ Salyers, MP, Bonfils, KA, Luther, L, Firmin, RI, et. al. (2016). The Relationship Between Professional Burnout and Quality and Safety in Healthcare: A Meta-Analysis. *Journal of General Internal Medicine*, 32(4), 475-482.

²⁸ Hall, L., Johnson, J., Watt, I., Tsipa, A., and O'Conner, D. (2016). Healthcare staff wellbeing, burnout and patient safety: A systematic Review. *PLOS One*, 11(7).

²⁹ Phipps, D., and Ashcroft, D. (2011). Psychosocial influence of safety climate: evidence from community pharmacies. *BMJ Qual Saf*, 20, 1062-1068.

³⁰ This measures the perceived ratio between the effort needed at work and the rewards gained from the work.

Content Questionnaire (JCQ)³¹, and the Pharmacy Safety Climate Questionnaire (PSCQ)³². The study found that the safety climate in community pharmacies is influenced by perceptions of job characteristics, such as the level of job demands and the resources available to meet these demands. The ERI scores indicated a relatively high risk of adverse psychological effects, and the JCQ scores indicated both a high demand on pharmacists and a high level of psychological and social resources to meet these demands. This indicates that the resources are available, but does not provide insight into whether they are actually used as a way to manage the pressures associated with high demand on pharmacists. The authors note that the demographic patterns in the PSCQ scores related to the type of pharmacy respondents practised in appeared to show that locum pharmacists, and pharmacists working in large chains or supermarkets, report a less favourable safety climate than do owners of independent pharmacies. It's acknowledged that the patterns in the PSCQ scores merit further examination to determine why they exist and whether they are reflected in other measures of pharmacy quality and safety.

Medicine

A 2018 systematic review of the literature sought to examine what is known about the processes of quality improvement (QI) teams in health care.³³ These teams provide a key mechanism by which to initiate and implement improvement efforts within healthcare, and are often ad hoc collections of various professions and/or occupations that are working together in time-limited ways to accomplish specific QI aims. A review of 48 articles that were included identified that QI teams that are dysfunctional are not likely to influence positive change in medical practice. Psychosocial traits such as perceptions of psychological safety amongst the team and at the organization affect team members' ability to engage in the creative conversation required to suggest new ideas, to speak up about concerns, disagreements and/or acknowledge knowledge deficits. One study they reviewed noted that there was an increase in overall psychological safety when individuals who were perceived to have higher status intentionally invited perspectives from other members.³⁴

Aviation

A particularly troubling example of what can happen when workers do not feel that it is safe to speak up or report errors have been reported in the aviation industry. Several aviation accidents have shown that crew members' failure to speak up can have devastating consequences. A 2012 study explored past 'speaking up' behavior and the reasons for silence in 1,751 crew members in the UK.³⁵ These crew members reported to have remained silent in half of all 'speaking up episodes' they had experienced. Silence was highest for first officers and pursers (those overseeing flight attendants), followed by flight attendants, and lowest for captains. Reasons for silence mainly concerned fears of damaging relationships, fear of punishment, or as a response to operational pressures.

4. Summary

This environmental scan provides insight into the workload, staffing and time constraints felt in community pharmacy, the impact of burnout and psychological safety on providing care to patients, and the risks associated with the practice environment that can negatively affect patient outcomes. Other jurisdictions are working to

³¹ This measures the demands imposed by work and the level of control that the respondent has over the work.

³² This measures the pharmacy's safety climate.

³³ Rowland, P., Lising, D., Sinclair, L., and Baker, R. (2018). Team dynamics within quality improvement teams: A scoping review. *International Journal for Quality in Health Care*, 30(6), 416-422.

³⁴ (cited in the paper as Nembhard and Edmondson, 2006)

³⁵ Bienefeld, N. and Grote, Gudela. (2012). Silence that may kill: When aircrew members don't speak up and why. *Aviation Psychology and Applied Human Factors*, 2(1), 1-10.

respond to these concerns using different approaches, and OCP is committed to working collaboratively with pharmacy stakeholders in Ontario to address the effects of the practice environment on the provision of safe, high quality patient care in community pharmacy.