

**REPORT TO THE
Newfoundland & Labrador Pharmacy Board**

**An Assessment of Safety Attitudes in
Newfoundland and Labrador Community Pharmacies**

2023 Edition

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Introduction

In Canada, there is a growing focus on medication safety as more provinces implement continuous quality improvement programs for community pharmacies. These programs are designed to improve reporting and learning from medication incidents and near-miss events. In doing so, they help to protect patients from harmful medication errors, while also strengthening the safety of the community pharmacy environment.

The [Medication Safety through Error Prevention \(MedSTEP NL\)](#) program was introduced to standardize medication incident reporting and continuous quality improvement for community pharmacies in Newfoundland and Labrador (NL).¹ Incidents reported through the MedSTEP NL program are submitted to the [National Incident Data Repository \(NIDR\)](#) for the purpose of identifying trends, assessing risks, and developing strategies to prevent future medication errors.

One tool that is being used to advance learning from the MedSTEP NL program is the Safety Attitudes Questionnaire (SAQ). The SAQ is an evidence-based tool that explores the safety culture maturity within work environments, particularly in healthcare.^{2,3,4} Questions from validated tools have been adapted to create the SAQ tool used for this baseline assessment (see [Appendix A](#)). The items that comprise this SAQ are divided into 3 domains that influence safety culture: Teamwork, Safety Culture, and Working Conditions.^{2,3,4}

This report summarizes the results of the first administration of the SAQ to NL community pharmacies in 2023.

Methods

The SAQ tool used for this analysis consisted of 24 items that users were required to score using a 5-point Likert Scale (1 = Strongly Disagree to 5 = Strongly Agree). The survey was provided online through the SurveyMonkey® platform, and responses were collected during a 6-week period between August 31, 2023, and October 12, 2023, inclusive. The link to the online survey was distributed to all registered pharmacy professionals (607 community pharmacists and 115 community pharmacy technicians) in Newfoundland and Labrador to assess their current attitudes and perceptions of safety culture, as well as the overall safety culture climate.

To obtain a comprehensive assessment of safety culture from all levels of pharmacy staff, registered pharmacy professionals were invited to share the link with non-registered support staff. Incomplete responses to the survey, whereby the respondent did not assign a score for all required items, were excluded from the analysis. As part of a subgroup analysis, the responses were stratified by years of work experience, type of workplace, and approximate number of prescriptions dispensed weekly. The overall average was calculated by dividing the sum of all responses by the number of responses within the respective item or domain. Respondents also had the option to submit additional feedback via free-form comments to summarize their views and insights in response to each question presented in the SAQ.

Results

A total of 99 responses were gathered from 79 pharmacists (13% response rate), 15 pharmacy technicians (13% response rate), and 5 other pharmacy staff. Demographic information of the respondents is shown in [Table 1 and Figure 1 \(additional services\)](#).

Table 1. Demographic information (n is the number of respondents and % is the percentage, relative to N, which is the total number of respondents)

Characteristics	Number of Respondents n (%) (N=99)
Position	
Pharmacy Owner	3 (3.03%)
Pharmacist In Charge (PIC)	28 (28.28%)
Pharmacy Owner and PIC	6 (6.06%)
Pharmacist (Staff)	42 (42.42%)
Registered Pharmacy Technician	15 (15.15%)
Other Pharmacy Staff	5 (5.05%)
Total Number of Years Working in Community Pharmacy	
0-5 years	19 (19.19%)
6-10 years	14 (14.14%)
11-20 years	30 (30.30%)
20+ years	36 (36.36%)
Average Number of Hours Worked PER WEEK at the Pharmacy	
Less than 20 hours (per week)	11 (11.11%)
20-32 hours (per week)	9 (9.09%)
33-40 hours (per week)	56 (56.57%)
More than 40 hours (per week)	23 (23.23%)
Type of Pharmacy *	
Corporate	37 (37.37%)
Banner	37 (37.37%)
Independently owned	25 (25.25%)
Approximate Number of Prescriptions Dispensed Weekly	
700 or fewer (per week)	18 (18.18%)
701 to 1500 (per week)	41 (41.41%)
1501 to 3000 (per week)	26 (26.26%)
More than 3000 (per week)	14 (14.14%)

* Corporate pharmacies are typically directed by a corporate office, with respect to its professional programs, marketing, ordering, etc. Banner pharmacies are independently owned pharmacies that are affiliated with a central office. They pay fees for the banner's benefit in centralized buying, marketing, and professional programs. Independent pharmacies are not affiliated with any corporately run chains or banners. The owner of an independent pharmacy has complete control over the business in terms of ordering, marketing strategies, etc.

The demographic question related to additional services allowed for the selection of multiple options. Additional services offered by the pharmacy are displayed in [Figure 1](#). Almost all respondents (99%) indicated that “Pharmacist prescribing” was offered at their pharmacy. Another common service offered was “Administration of drug therapy by inhalation or injection” which was selected by 95% of respondents. “Opioid agonist maintenance treatment” was selected by 61% of respondents, while “Sterile and/or non-sterile compounding” was selected by 54% of respondents. Less common services offered included “Service to long-term care facilities”, “Service to personal care homes”, and “Central fill” at 35%, 16%, and 15%, respectively.

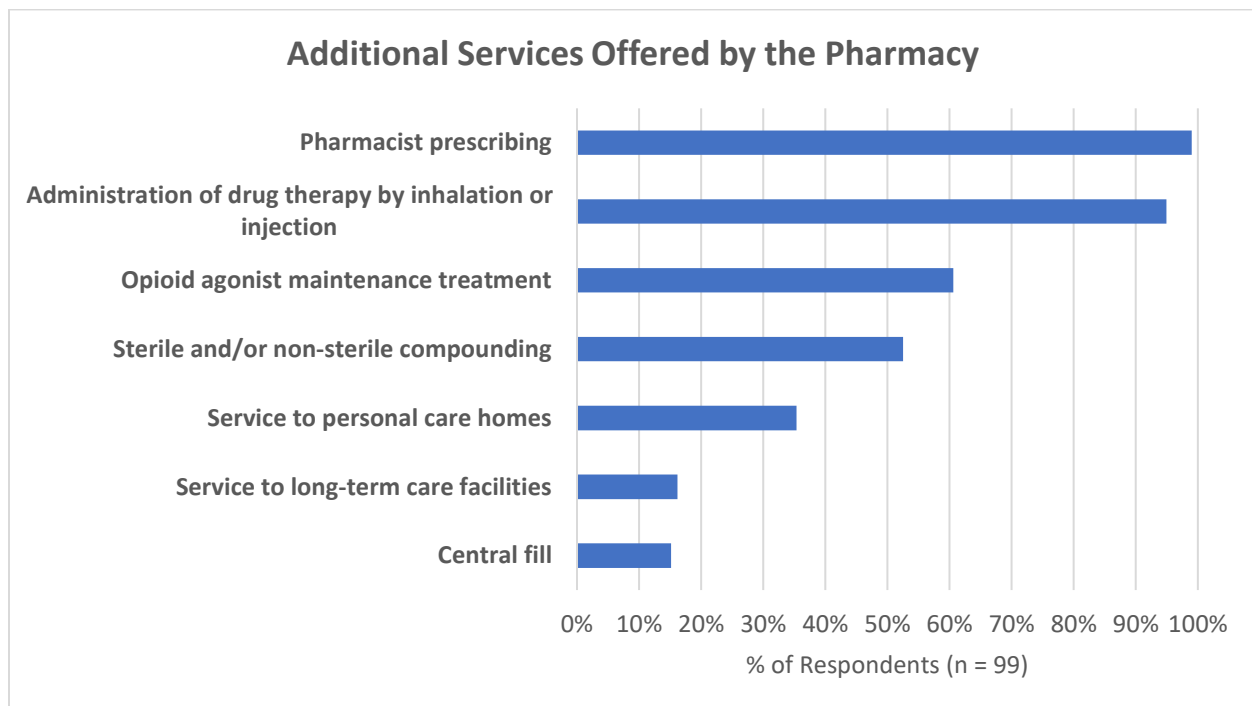


Figure 1. Frequency of responses to ‘additional services offered by the pharmacy’. Results are shown as a percentage of respondents (n = 99) that selected a given service.

The results of this baseline SAQ, stratified by years of work experience, type of workplace, and approximate number of prescriptions dispensed weekly, with respect to each of the three domains (Teamwork, Safety Culture, and Working Conditions) are presented in [Table 2](#), [Table 3](#), and [Table 4](#), respectively.

Table 2. Average scores with respect to the respondent's total number of years of work experience in community pharmacy practice. Scores range from 1 (Strongly Disagree) to 5 (Strongly Agree).

Safety Culture Domains	Total Number of Years Working in Community Pharmacy				Overall Average
	0 – 5 years	6 – 10 years	11 – 20 years	20+ years	
Teamwork	3.90	3.69	3.95	3.99	3.92
My input is well received in this pharmacy.	3.84	3.64	3.83	3.94	3.85
In this pharmacy, it is easy to speak up if I perceive a problem with patient care.	3.79	3.64	3.97	4.06	3.92
Disagreements in this pharmacy are resolved appropriately (i.e., not who is right but what is best for the patient).	3.79	3.64	3.97	3.97	3.89
I have the support I need from others in this pharmacy to care for patients.	3.95	3.71	3.80	3.94	3.87
It is easy for personnel here to ask questions when there is something that they do not understand.	4.21	4.14	4.17	3.94	4.09
The people in this pharmacy work together as a well-coordinated team.	3.84	3.36	3.97	4.06	3.89
Safety Culture	4.02	3.83	3.97	4.13	4.02
I would feel safe being treated here as a patient.	4.32	4.00	4.17	4.33	4.23
When a mistake happens, we try to figure out what problems in the work process led to the mistake.	4.53	4.07	4.23	4.47	4.35
I know the proper channels to direct questions regarding patient safety in this pharmacy.	3.89	3.79	4.10	4.14	4.03
I receive appropriate feedback about my performance.	3.47	3.43	3.47	3.42	3.44
Staff in this pharmacy discuss mistakes.	4.16	3.64	3.90	4.08	3.98
I am encouraged by others in this pharmacy, to report any patient safety concerns I may have.	3.79	3.86	3.77	3.97	3.86
The culture in this pharmacy makes it easy to learn from the errors of others.	3.79	3.14	3.80	3.97	3.77
We encourage patients to talk to pharmacists about their medications.	4.47	4.50	4.60	4.44	4.51
In this pharmacy, we talk about ways to prevent mistakes from happening again.	3.95	3.86	3.87	4.28	4.03
When the same mistake keeps happening, we change the way we do things.	3.84	4.00	3.80	4.14	3.96
Working Conditions	3.68	3.40	3.55	3.72	3.62
Management in this pharmacy supports my daily efforts.	3.84	3.21	3.60	3.69	3.63

Safety Culture Domains	Total Number of Years Working in Community Pharmacy				Overall Average
	0 – 5 years	6 – 10 years	11 – 20 years	20+ years	
I get adequate, timely information about events that might affect my work, from pharmacy management.	3.95	3.21	3.50	3.53	3.56
The staffing levels in this pharmacy are sufficient to handle the number of patients.	3.37	2.71	3.07	3.11	3.09
This pharmacy does a good job of training new personnel.	3.32	3.07	3.17	3.56	3.32
All the necessary information for therapeutic decisions is routinely available to me.	4.32	4.21	4.13	3.97	4.12
Trainees in this pharmacy are adequately supervised.	3.47	3.64	3.67	4.11	3.79
Staff performance concerns are managed constructively.	3.26	3.07	3.37	3.64	3.40
Our pharmacists spend enough time talking to patients about how to use their medications.	3.89	4.07	3.93	4.17	4.03

Table 3. Average scores with respect to the respondent's pharmacy workplace type. Scores range from 1 (Strongly Disagree) to 5 (Strongly Agree).

Safety Culture Domains	Type of Pharmacy			Overall Average
	Banner	Corporate	Independent	
Teamwork	3.95	3.82	4.01	3.92
My input is well received in this pharmacy.	3.97	3.76	3.80	3.85
In this pharmacy, it is easy to speak up if I perceive a problem with patient care.	4.00	3.86	3.88	3.92
Disagreements in this pharmacy are resolved appropriately (i.e., not who is right but what is best for the patient).	3.84	3.89	3.96	3.89
I have the support I need from others in this pharmacy to care for patients.	3.95	3.68	4.04	3.87
It is easy for personnel here to ask questions when there is something that they do not understand.	4.05	3.97	4.32	4.09
The people in this pharmacy work together as a well-coordinated team.	3.92	3.73	4.08	3.89
Safety Culture	4.09	3.91	4.06	4.02
I would feel safe being treated here as a patient.	4.35	4.03	4.36	4.23

Safety Culture Domains	Type of Pharmacy			Overall Average
	Banner	Corporate	Independent	
When a mistake happens, we try to figure out what problems in the work process led to the mistake.	4.38	4.19	4.56	4.35
I know the proper channels to direct questions regarding patient safety in this pharmacy.	4.05	4.00	4.04	4.03
I receive appropriate feedback about my performance.	3.51	3.46	3.32	3.44
Staff in this pharmacy discuss mistakes.	4.19	3.86	3.84	3.98
I am encouraged by others in this pharmacy, to report any patient safety concerns I may have.	3.86	3.81	3.92	3.86
The culture in this pharmacy makes it easy to learn from the errors of others.	3.89	3.65	3.76	3.77
We encourage patients to talk to pharmacists about their medications.	4.54	4.43	4.56	4.51
In this pharmacy, we talk about ways to prevent mistakes from happening again.	4.11	3.89	4.12	4.03
When the same mistake keeps happening, we change the way we do things.	3.97	3.81	4.16	3.96
Working Conditions	3.66	3.47	3.78	3.62
Management in this pharmacy supports my daily efforts.	3.54	3.65	3.72	3.63
I get adequate, timely information about events that might affect my work, from pharmacy management.	3.57	3.51	3.60	3.56
The staffing levels in this pharmacy are sufficient to handle the number of patients.	3.16	2.70	3.56	3.09
This pharmacy does a good job of training new personnel.	3.38	3.14	3.52	3.32
All the necessary information for therapeutic decisions is routinely available to me.	4.16	4.11	4.08	4.12
Trainees in this pharmacy are adequately supervised.	3.86	3.59	3.96	3.79
Staff performance concerns are managed constructively.	3.46	3.27	3.52	3.40
Our pharmacists spend enough time talking to patients about how to use their medications.	4.14	3.76	4.28	4.03

Table 4. Average scores with respect to the approximate number of prescriptions dispensed weekly at the respondent's community pharmacy. Scores range from 1 (Strongly Disagree) to 5 (Strongly Agree).

Safety Culture Domains	Approximate Number of Prescriptions Dispensed Weekly				Overall Average
	700 or fewer	701 to 1500	1501 to 3000	More than 3000	
Teamwork	4.12	4.15	3.64	3.49	3.92
My input is well received in this pharmacy.	3.94	4.12	3.54	3.50	3.85
In this pharmacy, it is easy to speak up if I perceive a problem with patient care.	4.00	4.27	3.62	3.36	3.92
Disagreements in this pharmacy are resolved appropriately (i.e., not who is right but what is best for the patient).	4.22	4.07	3.62	3.43	3.89
I have the support I need from others in this pharmacy to care for patients.	3.94	4.12	3.62	3.50	3.87
It is easy for personnel here to ask questions when there is something that they do not understand.	4.39	4.27	3.81	3.71	4.09
The people in this pharmacy work together as a well-coordinated team.	4.22	4.05	3.65	3.43	3.89
Safety Culture	4.24	4.30	3.71	3.46	4.02
I would feel safe being treated here as a patient.	4.44	4.56	3.92	3.57	4.23
When a mistake happens, we try to figure out what problems in the work process led to the mistake.	4.72	4.59	4.12	3.64	4.35
I know the proper channels to direct questions regarding patient safety in this pharmacy.	4.22	4.24	3.85	3.50	4.03
I receive appropriate feedback about my performance.	3.44	3.73	3.08	3.29	3.44
Staff in this pharmacy discuss mistakes.	4.33	4.24	3.62	3.43	3.98
I am encouraged by others in this pharmacy, to report any patient safety concerns I may have.	4.06	4.22	3.42	3.36	3.86
The culture in this pharmacy makes it easy to learn from the errors of others.	3.89	4.20	3.35	3.14	3.77
We encourage patients to talk to pharmacists about their medications.	4.67	4.63	4.35	4.21	4.51
In this pharmacy, we talk about ways to prevent mistakes from happening again.	4.28	4.37	3.77	3.21	4.03
When the same mistake keeps happening, we change the way we do things.	4.39	4.24	3.62	3.21	3.96

Safety Culture Domains	Approximate Number of Prescriptions Dispensed Weekly				Overall Average
	700 or fewer	701 to 1500	1501 to 3000	More than 3000	
Working Conditions	3.83	3.83	3.38	3.15	3.62
Management in this pharmacy supports my daily efforts.	3.67	3.78	3.46	3.43	3.63
I get adequate, timely information about events that might affect my work, from pharmacy management.	3.56	3.78	3.31	3.36	3.56
The staffing levels in this pharmacy are sufficient to handle the number of patients.	3.33	3.54	2.54	2.50	3.09
This pharmacy does a good job of training new personnel.	3.78	3.56	3.12	2.43	3.32
All the necessary information for therapeutic decisions is routinely available to me.	4.17	4.29	4.04	3.71	4.12
Trainees in this pharmacy are adequately supervised.	4.28	3.90	3.62	3.14	3.79
Staff performance concerns are managed constructively.	3.78	3.63	3.04	2.93	3.40
Our pharmacists spend enough time talking to patients about how to use their medications.	4.11	4.17	3.92	3.71	4.03

Discussion

This is the first SAQ done in Newfoundland and Labrador for community pharmacies, thereby serving as a baseline that will help to evaluate trends in safety culture. For this analysis, the three domains in the SAQ were stratified by: 1) years of work experience of the respondent, 2) type of pharmacy workplace, and 3) approximate number of prescriptions dispensed weekly. Additional stratification by position type (i.e., pharmacist, pharmacy technician) was omitted due to the uneven distribution of responses amongst these groups of respondents. In addition to the overall average values of the SAQ items, comments in the free-text fields were examined to identify other findings.

Teamwork

The Teamwork domain assesses perceptions of collaboration, conflict resolution and team support within the workplace. Teamwork was the second highest-scoring safety domain, with an overall average score of 3.92 ([Table 2](#), [Table 3](#), and [Table 4](#)). The highest scoring item in the Teamwork domain was *“It is easy for personnel here to ask questions when there is something that they do not understand”* with an overall average score of 4.09. When stratified by work experience, this item scored higher among respondents with 0 to 5 years of work experience in community pharmacy practice ([Table 2](#)), suggesting that individuals with fewer years of work experience feel comfortable speaking up and asking clarifying questions. When stratified by workplace type, this item scored higher among respondents working in independent pharmacies ([Table 3](#)), suggesting that staff in this setting are more inclined to ask questions to address any uncertainties. This item also scored higher among respondents working at pharmacies with lower prescription volumes ([Table 4](#)). Based on the relatively consistent average scores for items under the Teamwork domain, it can be inferred that NL pharmacies generally foster a positive and supportive environment for staff to seek clarification and guidance when they encounter a task that they do not understand.

While the Teamwork domain received a high score overall, concerns were raised by some SAQ respondents regarding the lack of resources available to support pharmacy teams. As noted in the comments section of the SAQ, pharmacies may not have sufficient staffing or equipment to handle the challenges of a heavy workload. One respondent commented that the workload is unmanageable for the number of staff available. Another respondent stated that there are not enough staff and resources to effectively carry out the various services offered by the pharmacy, including administration of vaccinations and assessments when prescribing for minor ailments. Although the data shows strong, positive team dynamics, the potential lack of resources may make it difficult to meet the demands placed on pharmacy teams. This, in turn, could increase the risk of prescription processing errors and negatively impact patient safety.⁵⁻⁸

As described in an [ISMP Canada Safety Bulletin](#), various process improvement strategies can be employed to optimize available resources and support pharmacy teams with performing tasks safely.⁹ These improvements may leverage technology, such as bar-code scanning, and software that automatically prints multiple labels if multiple containers are being dispensed.^{9,10} Additionally, all members of the pharmacy team should be educated about the importance of communication and comprehensive information gathering techniques.¹¹ The use of standard operating procedures can assist with establishing practice expectations, and ensure that team members receive consistent training to

perform their duties.⁹ These strategies can facilitate greater teamwork, especially during times of high work volume.

Safety Culture

The domain of Safety Culture evaluates how pharmacy teams manage medication errors and whether they promote a culture of openly discussing errors and working towards system-based solutions. Safety Culture is the highest-scoring domain, with an overall average score of 4.02 ([Table 2](#), [Table 3](#), and [Table 4](#)). When stratified by work experience, a higher average score in this domain was identified among respondents with over 20 years of experience ([Table 2](#)). Respondents with greater years of work experience contributed higher scores to items related to discussing ways to prevent mistakes from happening again, and changing the way things are done when the same mistake keeps happening. Most respondents across all levels of work experience agreed that, in the event of an error, there is emphasis placed on investigating the contributing factors that led to the mistake, rather than a “blame and shame” approach that places individuals at fault ([Table 2](#)). This suggests that most of the community pharmacies participating in this SAQ foster a culture of learning, improvement, and accountability. These factors lead to better patient care and a safer work environment. Many respondents conveyed their trust in their pharmacy’s safety measures by indicating that they would feel safe as patients being treated at the pharmacy. This indicates that the pharmacy staff have confidence in the existing standards that safeguard patient safety.

The lowest scoring item in the Safety Culture domain was *“I receive appropriate feedback about my performance”*. This score was lowest among respondents working in independent pharmacies, compared with banner and corporate pharmacies ([Table 3](#)). This may be due to fewer resources and time being invested at independent pharmacies to provide staff with feedback and improvement opportunities. Lower average scores were also seen for this item, as the weekly prescription volume increased ([Table 4](#)). As described in the comments section of the survey, most respondents agreed that community pharmacies are often very busy, making it difficult to allocate time to provide feedback to staff members. To address this, pharmacy leadership may consider using a standard documentation template to provide feedback, and schedule performance reviews with staff to understand their goals and suggest opportunities for growth.¹² Pharmacy leaders should also ensure that team members receive the necessary training to report medications incidents and are provided with protected time to report any incidents and near misses into the appropriate incident reporting platform.

Promoting a culture of shared learning and encouraging open discussions regarding medication errors can have a positive impact on the exchange of constructive feedback among pharmacy staff members. Further investigations into what types of feedback mechanisms could be effectively employed in community pharmacies may offer better insights into this aspect of the Safety Culture domain.

Working Conditions

The Working Conditions domain assesses how respondents feel about the way patient safety is maintained by management and evaluates their perception on the availability of resources to perform tasks safely. The Working Conditions domain received the lowest score with an overall average score of 3.62 ([Table 2](#), [Table 3](#), and [Table 4](#)). Although there is consensus among the respondents that

management is supportive of efforts to enhance patient safety, there are various suggestions that workflow efficiency is prioritized by management over safety. When stratified by work experience, respondents with over 20 years of work experience demonstrated a higher average score in this domain, followed by respondents with 0 to 5 years of work experience ([Table 2](#)). Additionally, higher average scores were seen among respondents from independent pharmacies ([Table 3](#)) and pharmacies with lower prescription volumes ([Table 4](#)), respectively.

The highest scoring item in the Working Conditions domain was *“All the necessary information for therapeutic decisions is routinely available to me”*, suggesting that pharmacists are equipped with the necessary resources to make clinical decisions. In contrast, the lowest scoring item was *“The staffing levels in this pharmacy are sufficient to handle the number of patients”*, with an average score of only 2.70 among respondents from corporate pharmacies ([Table 3](#)). Similarly, this item scored lower among respondents working at pharmacies with greater prescription volumes, with a notable decrease in the average scores among respondents working at pharmacies that dispense more than 1500 prescriptions per week ([Table 4](#)). The problem of insufficient staffing may reflect the underlying differences between the professional goals of pharmacy practitioners and the financial objectives of pharmacy management.¹³ One respondent stated, “[There is] pressure from corporate to reduce staffing and to increase pharmacist services”. Another respondent stated, “[There is] not enough staff for the prescription volume and other duties we have”.

As a common theme, respondents expressed concerns about being inadequately staffed and experiencing heavy workloads without breaks, which was perceived to adversely affect staff wellness and quality of patient care. These findings suggest that there may be a need for improved staffing and training to handle the substantial workload in NL community pharmacies. To address these challenges, pharmacy leaders should work collaboratively with staff to proactively identify areas for improvement and co-create targeted action plans.¹⁴ When managers engage with staff to understand their concerns, improvements to the practice setting may become more feasible, improving the safety of the setting as well.

Limitations

The response rate for this SAQ was 13% of community pharmacists responding to all survey items and 13% of pharmacy technicians responding to all survey items. As such, our findings may not resonate with the entire cohort of community pharmacy professionals in Newfoundland and Labrador.

Responses from pharmacists account for the majority (79.8%) of the data, therefore the views of pharmacy technicians and other pharmacy support staff may have been under-represented.

Additionally, individuals with pre-existing concerns about safety culture may be more inclined to complete the questionnaire, potentially introducing bias.

Conclusion

Based on the responses obtained from the first administration of the SAQ in Newfoundland and Labrador, pharmacy professionals generally have a positive view of the safety culture in their pharmacies. In most cases, respondents agree that medication errors are handled appropriately and would feel safe receiving services from their respective pharmacy.

Most opportunities for improvement were identified in the domain of Working Conditions. Although having trust in management to advance patient safety initiatives, respondents expressed a need for management to address staffing levels according to the workload in community pharmacies.

The pharmacy profession is constantly evolving, notably with increasing clinical services to patients. Continuous quality improvement is key to a culture of safety. Tools such as the SAQ help to establish a baseline and evaluate potential shifts in safety culture. Developing and sustaining a positive safety culture in community pharmacies is important for patient safety, staff well-being, and ongoing quality improvement.

References

1. MedSTEP NL Program Overview. St. John's (NL): Newfoundland & Labrador Pharmacy Board; 2023 [cited 2023 Nov 14]. Available from: <https://nlpb.ca/quality-assurance/medstep-nl/medstep-nl/>
2. Sexton JB, et al. The Safety Attitudes Questionnaire: psychometric properties, benchmarking data, and emerging research. *BMC Health Services Research*. 2006; 6:44. DOI: 10.1186/1472-6963-6-44.
3. Norden-Hagg A, et al. Assessing safety culture in pharmacies: the psychometric validation of the Safety Attitudes Questionnaire (SAQ) in a national sample of community pharmacies in Sweden. *BMC Clinical Pharmacology* 2010; 10:8. DOI: 10.1186/1472-6904-10-8.
4. Norden-Hagg A, Kalvemark-Sporrong S, Lindblad AK. Exploring the relationship between safety culture and reported dispensing errors in a large sample of Swedish community pharmacies. *BMC Pharmacology and Toxicology*. 2012; 13:4. DOI: 10.1186/2050-6511-13-4.
5. Jacobs S, Johnson S, Hassell K. Managing workplace stress in community pharmacy organisations: lessons from a review of the wider stress management and prevention literature. *Int J Pharm Pract*. 2018; 26(1):28-38.
6. Rajah R, Hanif AA, Tan SSA, Lim PP, Karim SA, Othman E, et al. Contributing factors to outpatient pharmacy near miss errors: a Malaysian prospective multi center study. *Int J Clin Pharm*. 2019; 41(1):237-243.
7. Weir NM, Newham R, Bennie M. A literature review of human factors and ergonomics within the pharmacy dispensing process. *Res Social Adm Pharm*. 2020; 16(5):637-645.
8. Thomas CEL, Phipps DL, Ashcroft DM. When procedures meet practice in community pharmacies: qualitative insights from pharmacists and pharmacy support staff. *BMJ Open*. 2016; 6(6):1-8. DOI: 10.1136/bmjopen-2015-010851.
9. Never Events for Community Pharmacy. ISMP Can Saf Bull. 2021 [cited 2023 Nov 15]; 21(3):1-6. Available from: <https://ismpcanada.ca/wp-content/uploads/ISMPCSB2021-i3-Community-Pharm-Assessments.pdf>
10. Balancing Safety and Efficiency in Community Pharmacy. ISMP Can Saf Bull. 2021 [cited 2023 Nov 14]; 21(7):1-6. Available from: <https://ismpcanada.ca/wp-content/uploads/ISMPCSB2021-i7-Safety-Efficiency.pdf>
11. Li S, Sheng L, Ho C. Communication is Key to Medication Safety. *Pharmacy Connection*. 2018; 25(4):30-33. Available from: <https://pharmacyconnection.ca/ismc-communication-key-medication-safety-fall-2018/>
12. Kennedy DR et al. Enhancing Pharmacy Faculty Well-Being and Productivity While Reducing Burnout. 2022 Jun; 86(5): 8764. DOI: 10.5688/ajpe8764.
13. Dobson RT and Perepelkin J. Pharmacy ownership in Canada: Implications for the authority and autonomy of community pharmacy managers. *Res Social Adm Pharm*. 2011 Dec; 7(4):347-58. DOI: 10.1016/j.sapharm.2010.10.005. Epub 2010 Dec 28. PMID: 21272538.
14. Liu M, Law J, Ho C. Continuous Quality Improvement (CQI): An Essential Constituent of Patient/Medication Safety. *Pharmacy Connection*. 2017; 24(1):30-33. Available from: <https://www.ismp-canada.org/download/PharmacyConnection/PC2017W-CQI.pdf>

Appendix A: Safety Attitudes Questionnaire (SAQ) Tool

Item#	Item Description	Item Response Options
Q01	Select the option that best describes your position.	• Pharmacy Owner • Pharmacist In Charge (PIC) • Pharmacy Owner and PIC • Staff Pharmacist • Registered Pharmacy Technician • Other pharmacy staff
Q02	Total number of years working in a community pharmacy?	• 0-5 years • 6-10 years • 11-20 years • 20+ years
Q03	How many hours do you work on average PER WEEK at this pharmacy?	• < 20 hours per week • 20-32 hours per week • 33-40 hours per week • 41-50 hours per week • >50 hours per week
Q04	Please choose the answer that matches your pharmacy type.	• Corporate • Banner • Independent
Q05	Please indicate yours hours of operation.	Open-ended response
Q06	What is the approximate number of prescriptions dispensed PER WEEK at your pharmacy?	• 700 or fewer (per week) • 701 to 1,500 (per week) • 1,501 to 3,000 (per week) • 3,001 to 6,000 (per week) • 6,001 to 12,000 (per week) • 12,001 or more (per week)
Q07	To the best of your knowledge, please provide the number of staff employed by your pharmacy by category below (including yourself).	• Pharmacists • Pharmacy Technicians • Pharmacy Assistants
Q08	Please indicate any additional services offered by your pharmacy. (Select all that apply)	• Administration of drug therapy by inhalation or injection • Central fill • Opioid agonist maintenance treatment • Pharmacist prescribing • Service to long-term care facilities • Service to personal care homes • Sterile and/or non-sterile compounding
Q09	Please indicate your level of agreement with each statement below.	• Q09a My input is well received in this pharmacy. • Q09b In this pharmacy, it is easy to speak up if I perceive a problem with patient care. • Q09c Disagreements in this pharmacy are resolved appropriately (i.e., not who is right but what is best for the patient).

		• Q09d I have the support I need from others in this pharmacy to care for patients. • Q09e It is easy for personnel here to ask questions when there is something that they do not understand. • Q09f The people in this pharmacy work together as a well-coordinated team.
Q10	Please list any additional comments regarding Teamwork below.	Open-ended response
Q11	Please indicate your level of agreement with each statement below.	• Q11a I would feel safe being treated here as a patient. • Q11b When a mistake happens, we try to figure out what problems in the work process led to the mistake. • Q11c I know the proper channels to direct questions regarding patient safety in this pharmacy. • Q11d I receive appropriate feedback about my performance. • Q11e Staff in this pharmacy discuss mistakes. 19 • Q11f I am encouraged by others in this pharmacy, to report any patient safety concerns I may have. • Q11g The culture in this pharmacy makes it easy to learn from the errors of others. • Q11h We encourage patients to talk to pharmacists about their medications. • Q11i In this pharmacy, we talk about ways to prevent mistakes from happening again. • Q11j When the same mistake keeps happening, we change the way we do things.
Q12	Please list any additional comments regarding Safety Culture below.	Open-ended response
Q13	Please indicate your level of agreement with each statement below.	• Q13a Management in this pharmacy supports my daily efforts. • Q13b I get adequate, timely information about events that might affect my work, from pharmacy management. • Q13c The staffing levels in this pharmacy are sufficient to handle the number of patients. • Q13d This pharmacy does a good job of training new personnel. • Q13e All the necessary information for therapeutic decisions is routinely available to me.

		• Q13f Trainees in this pharmacy are adequately supervised. • Q13g Staff performance concerns are managed constructively. • Q13h Our pharmacists spend enough time talking to patients about how to use their medications
Q14	Please list any additional comments regarding Working Conditions below.	Open-ended response
Q15	Please list any additional comments below. We also welcome your feedback on the questionnaire itself.	Open-ended response

Appendix B: Supplementary Analysis

ISMP Canada commissioned the Accessing Centre for Expertise (ACE) to conduct an evaluation of the SAQ tool and analyze the results from the survey of NL Pharmacy Board registrants. Selected findings from this analysis are summarized below, including the survey response rates and completion times, key pharmacy characteristics of respondents, and a summary of respondents' safety attitudes.

Table B1: Response Rates*

Respondent Group	Invited (n)	Partial Responses (n)	Complete† Responses (n)	Partial Response Rate %	Complete Response Rate %
All respondents	722	111	99	15%	14%
All respondents (excluding other pharmacy staff)	722	105	94	15%	13%
Pharmacists	607	88	79	14%	13%
Pharmacy technicians	115	17	15	15%	13%
Other pharmacy staff	NA	6	5	NA	NA

*Response rates are estimates as number of other pharmacy staff (i.e., pharmacy assistants) invited to participate in the survey was not specified.

†Complete response defined as providing a response to all personal/pharmacy-specific items (i.e., Q01-Q08) and the three Likert scale items (i.e., Q09, Q11, Q13).

Table B2: Respondent Time-to-Completion

Respondent Sub-Group	Responses (n)	Median Time-to-Completion	Mean Time-to-Completion
Respondents who initiated the survey but did not complete all questions	111	5 min 21 sec	35 min 30 sec
Respondents who initiated the survey but did not complete all questions, excluding three outlier respondents who each took more than 10 hours to complete the survey	108	5 min 21 sec	8 min 26 sec
Respondents who initiated the survey and completed all questions	99	5 min 40 sec	38 min 46 sec
Respondents who initiated the survey and completed all questions, excluding three outlier respondents who each took more than 10 hours to complete the survey	96	5 min 29 sec	6 min 25 sec

Table B3: Number of Pharmacy Staff

SAQ Question	Response Options	Minimum	Median	Maximum
Q07: To the best of your knowledge, please provide the number of staff employed by your pharmacy by category below (including yourself).	Pharmacists	1	3	10
	Pharmacy technicians	0	1	17
	Pharmacy assistants	0	3	18

Figure B1: Histogram of Level of Agreement to Teamwork Statements

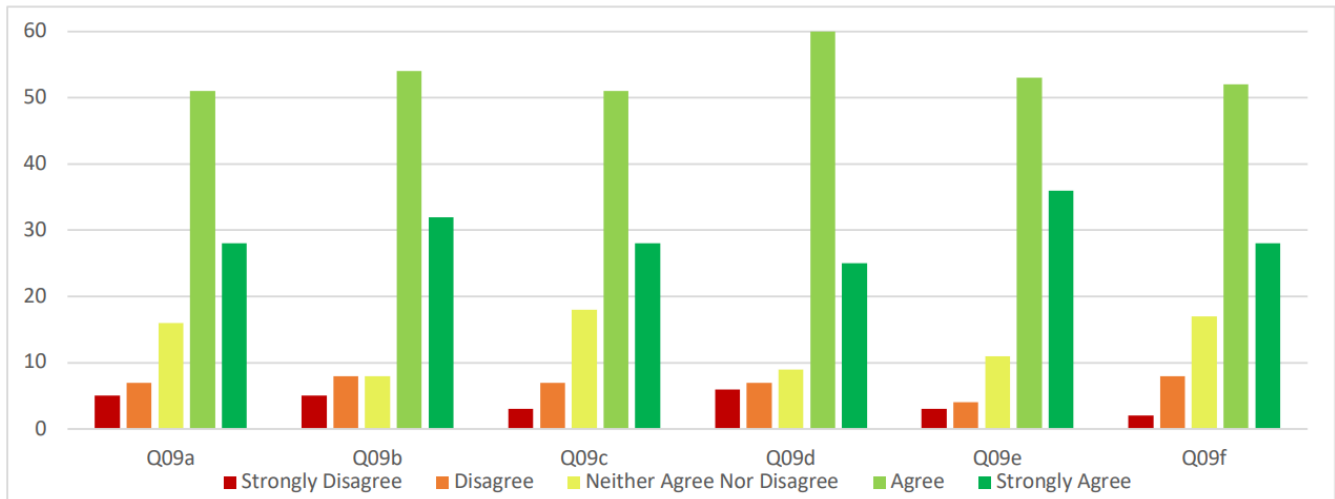


Figure B2: Histogram of Level of Agreement to Safety Culture Statements

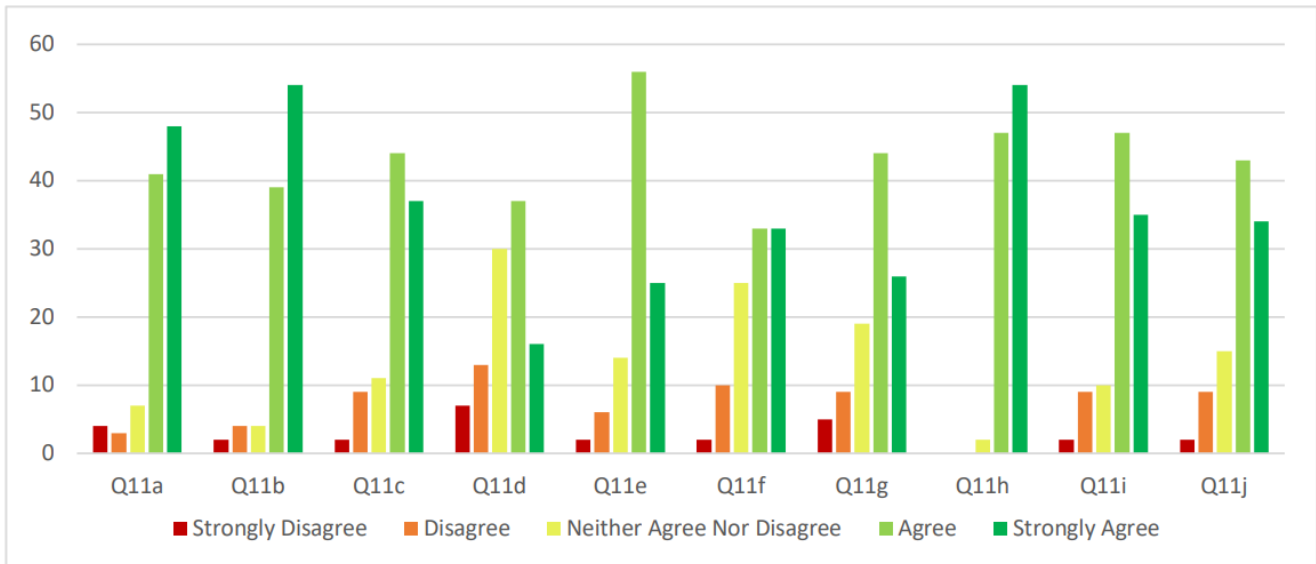
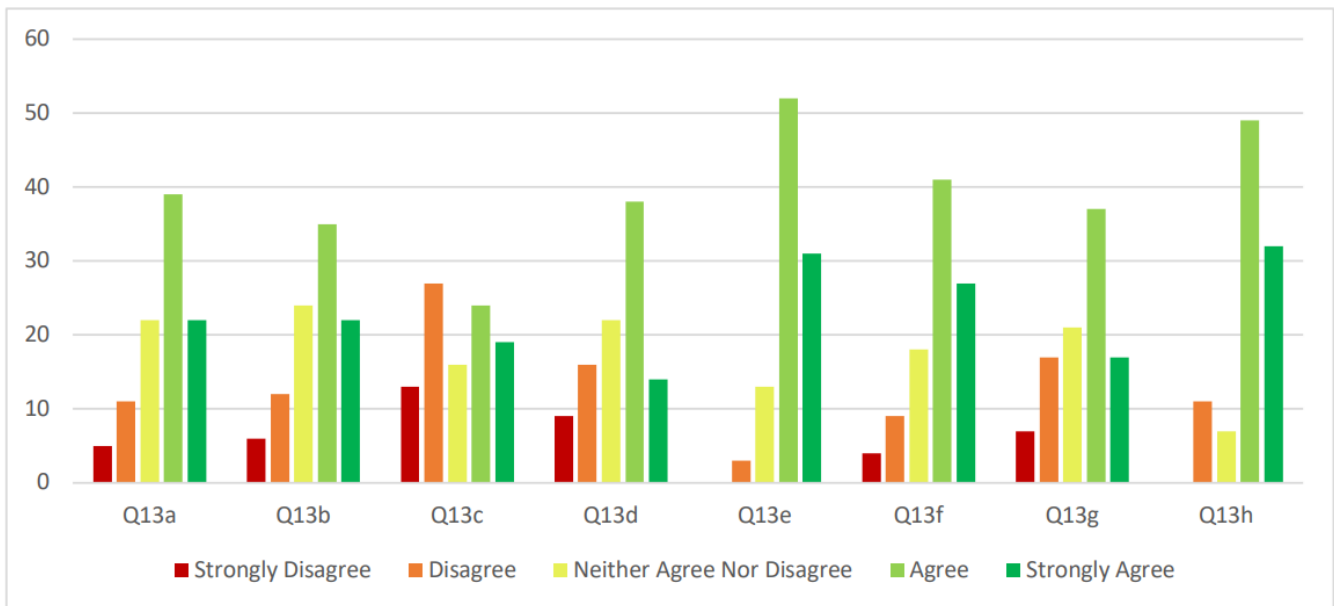


Figure B3: Histogram of Level of Agreement to Working Conditions Statements



Key Findings from Supplementary Analysis:

- **Teamwork:** Respondents generally reported positive attitudes towards teamwork, with high levels of agreement on statements related to the ease of asking questions and the reception of input within the pharmacy. This suggests a strong foundation of collaborative practice among pharmacy staff, which is key for maintaining a high safety standard.
- **Safety Culture:** The survey indicated a robust safety culture within NL community pharmacies, especially in aspects such as encouraging patient-pharmacist communication. However, areas for improvement were identified, such as the need for appropriate feedback on performance, highlighting the importance of continuous feedback mechanisms in promoting a culture of safety.
- **Working Conditions:** The most significant concerns arose in the domain of working conditions, particularly regarding staffing levels and the sufficiency of resources to handle patient loads. These issues point to the need for strategic workforce planning and resource allocation to ensure that pharmacies can effectively manage workloads without compromising safety.
- **Prescription Volume:** Respondents who worked in pharmacies with the highest prescription volumes generally had less positive safety attitudes than those working in pharmacies with lower prescription volumes. However, it was also notable that respondents from the lowest prescription volume pharmacies did not report the highest levels of agreement overall, but rather the pharmacies with prescription volumes from 701-1,500 per week reported the highest levels of agreement for five of the eight working conditions statements, suggesting that there may be an optimal balance for prescription volumes, that are not too low or too high.