

Practice change challenges and priorities: A national survey of practising pharmacists

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Pharmacist practice change is a priority in Canada. Prior to implementing any major change, it is important to understand the perspectives of those who will be most affected. We asked practising Canadian pharmacists about the challenges and barriers they might encounter when moving towards a patient-centred practice. *Au Canada, il faut faire du changement de la pratique de la pharmacie une priorité. Avant toute mise en œuvre de changements majeurs, il importe de comprendre le point de vue des premiers intéressés. Nous avons demandé à des pharmaciens canadiens en exercice de nous faire part des défis et des obstacles qui pourraient se poser au moment de s'engager dans une pratique axée sur les patients.*

Abstract

Background: Vision and action plans have been created to address the future of pharmacy and help pharmacists progress into expanded roles in order to provide more patient-centred care. To assess the thoughts and perceptions of pharmacists in these new roles, a survey was conducted among practising pharmacists in Canada.

Methods: A Web-based survey, developed as part of the Canadian Pharmacists Association's Moving Forward initiative, was open to all practising pharmacists in September and October of 2007. This survey educated pharmacists on potential future roles and sought to gain feedback on the human resource challenges and priorities that might result from the proposed practice changes.

Results: From the 1003 respondents, it was found that the majority of pharmacist time is spent on dispensing duties. However, over 60% of pharmacists felt that it was time to begin tak-

ing on new responsibilities and over 70% of pharmacists want to be performing expanded clinical duties within 5 years.

Discussion: It is encouraging to see that most pharmacists are open to new expanded clinical roles in the near future. Despite the challenges identified, such as the need for additional training, increases in workload and stress and expected poor physician acceptance, it was felt that changes would result in improved patient health outcomes and better personal job satisfaction.

Conclusion: Pharmacists have responded positively to the proposed vision for the future of pharmacy and are eager to move away from the traditional dispensing role to an expanded clinical role that more fully utilizes their unique skills and knowledge. *Can Pharm J* 2011;144:125-131.

Background

Over the past 100 years, the services provided by pharmacists have undergone frequent, sometimes dramatic, changes to meet societal and health system expectations.¹ Significant pressure to change pharmacist practice occurred with the introduction of pharmaceutical care in 1990,² which was the impetus for the profession to strive toward a patient-centred practice.¹ Despite having had over 20 years to implement pharmaceutical care, pharmacists are still struggling to move away from a dispensing-based role.¹ Further pressure for phar-

maci st practice change has come from the publication of multiple studies that have documented the high rate of medication-related adverse events and poorly managed chronic diseases in the Canadian health system.³⁻⁸ Moreover, professional pharmacy organizations around the globe have recognized that practice change is needed to put pharmacists at the forefront of medication management in an effort to improve patient care.^{1,9}

In order to define a vision and clear action plan for the changes necessary for the profession of pharmacy in Canada, a task force was formed

Knowledge into practice

- The future of pharmacy involves moving from the traditional dispensing role to expanded clinical duties.
- Practising pharmacists appear to be eager and willing to take on these new roles.
- Pharmacists feel that there is a need for extra training to prepare for this transition.
- Achieving system-wide practice change is a challenge that the profession of pharmacy continues to face.

in 2007 to develop a Blueprint for Pharmacy.¹⁰ This Blueprint process was “a collaborative initiative to develop a strategic plan for the pharmacy profession in Canada” with the intent of helping to “strengthen pharmacy’s alignment with the health care needs of Canadians.”¹⁰ In June 2008, the final

Blueprint for Pharmacy document was released, describing the vision for pharmacy and including a detailed action plan for how this vision could be achieved.

To better understand the human resource opportunities and challenges that might arise as the profession moved toward the vision outlined in the Blueprint, 8 national pharmacy organizations partnered to carry out a human resources study called Moving Forward: Pharmacy Human Resources for the Future.¹¹ This project was a multipronged research program, the overall results of which can be accessed at www.pharmacyhr.ca.

One major component of Moving Forward was to consult practising pharmacists from across Canada regarding their perceptions of the human resource challenges and opportunities that may result from moving toward the new vision for pharmacy.¹¹ As the Blueprint was developed, little was known of what Canadian pharmacists thought about the proposed changes. With that in mind, Moving Forward commissioned the development and execution of an online survey targeting practising Canadian pharmacists, with the goal of documenting their opinions regarding proposed future practice changes.¹¹ This article summarizes the results of that national survey.

Methods

A novel online survey tool called Choicebook was used in order to consult with practising pharmacists across Canada. The Choicebook survey tool was composed of a pre-survey educational component that gave pharmacists the opportunity to learn more about the new vision for pharmacy so that their feedback would be as informed as possible, followed by a 20- to 30-minute survey asking Blueprint-related questions in the following 6 areas: participant demographics, time spent on various pharmacy-related work activities, job satisfaction, participant’s perception of the human

resource implications of the new roles for pharmacists proposed in the Blueprint and the challenges and opportunities facing the pharmacy workforce. A detailed description of the survey questions is available at www.pharmacyhr.ca. The Choicebook survey was pilot-tested by a panel of practising pharmacists and was reviewed by an expert panel prior to use to determine ease of use and face validity (i.e., to ensure it would be capable of measuring the intended endpoints).

All practising pharmacists in Canada were invited to take part in the survey. Investigators partnered with provincial and national regulatory and advocacy organizations to recruit participants. These partner organizations sent invitations to their practising members and promoted the survey via a variety of media (e-mails, letters, conference presentations, faxes and Web postings). The survey was open during September and October of 2007 and was available in both French and English. The survey was created so that it was not possible for pharmacists to respond more than once. In return for participating, pharmacists were eligible for 0.5 continuing education credits from the Canadian Council on Continuing Education in Pharmacy and were also eligible for a participation prize draw.

Results

Overall, 1003 pharmacists participated in the survey, with a total of 741 participants (74%) completing the entire survey. Data on those who did not answer every question were still incorporated into the research findings.

There was participation from a wide range of age groups. Younger pharmacists, 34 years and under, accounted for 33.5% of participants; more experienced pharmacists, aged 35 and older, accounted for 66.5% of participants. This provided a good mix of generational perspectives on the future of the profession. Reflecting the gender balance of pharmacists in Canada, 60.5% of participants were female. The majority of participants (88.6%) had a Bachelor of Science in Pharmacy degree with no additional advanced training. Approximately half of all respondents practised in community pharmacy, one-third in hospitals and the remainder in a variety of settings such as primary care clinics, industry or academic institutions. There was a fairly representative sample of participants from across Canada, however, British Columbia, Quebec and Ontario were somewhat underrepresented and Manitoba and Saskatchewan were overrepresented. See Table 1 for distribution of participants by province.

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Pharmacist time allocation and job satisfaction

Pharmacists were asked to estimate the amount of time that they currently spend performing a variety of professional activities, along with their satisfaction performing these activities. Not surprisingly, pharmacists reported that the majority of their time was spent dispensing. Just over one-third of pharmacists stated that they spend half to almost all of their time on technical tasks related to dispensing, with about the same proportion of pharmacists reporting that they spend half to almost all of their time on clinical tasks related to dispensing (e.g., patient education, screening for drug interactions, determining or calculating appropriate doses).

Interestingly, 48% of pharmacists reported that they never get involved in quality improvement projects and 34% reported that they never teach or mentor pharmacy students. Even though it is expected of pharmacists, 14% reported that they never participate in continuing education or professional development activities.

When it comes to pharmacist job satisfaction, over 50% of respondents stated that clinical tasks related to dispensing, communicating with or advising other health care professionals and direct patient care not related to dispensing (such as patient self-care, medication reviews) were satisfying or very satisfying. In contrast, only 16% were satisfied or very satisfied with the amount of time they have to spend on dispensing. Interestingly, pharmacists working in chain pharmacies (including grocery stores and mass merchandisers) did not find any aspect of dispensing (both the technical and clinical duties) as satisfying as pharmacists in other settings. Overall, third-party billing and related administrative matters were identified as the least satisfying tasks (among all those pharmacists involved in this function).

Pharmacists' perceptions on the future of pharmacy

In this section of the survey, participants were presented with a series of statements about the potential future role of pharmacists and were asked to provide their opinion of these statements using a 5-point Likert scale ranging from "strongly disagree" to "strongly agree." The results are presented in Table 2. Overall, the majority of pharmacists (62.5%) agreed or strongly agreed that there is an urgency to change their role and almost half of pharmacists (43.5%) felt that they were currently prepared to take on an expanded role. However, the respondents identified some barriers to taking on these expanded roles. Despite the fact that the majority of participants (78.6%) felt that patients

TABLE 1 Distribution of participants by province

Location of practice	Percentage (n = 1003)	Representative sample (%)*
British Columbia	5.6	12.1
Alberta	14.3	12.1
Saskatchewan	11.4	4.0
Manitoba	12.2	4.0
Ontario	28.2	34.3
Quebec	10.9	24.8
Nova Scotia	4.6	3.5
New Brunswick	5.0	2.3
Newfoundland and Labrador	3.0	2.1
Prince Edward Island	1.7	0.5
Territories	0.6	0.2
Outside Canada	0.9	–
Not employed	1.5	–

*From the Canadian Institute for Health Information, *Pharmacists in Canada*, 2009 publication.

would be accepting of a new role for pharmacists, many (48%) felt that physicians would be reluctant to work with pharmacists in an expanded role. In addition, most participants (85.6%) identified that an expanded role could not be extensively offered without a change in the current reimbursement model. Despite these challenges, a large majority of pharmacists (88.4%) agreed that taking on an expanded role would lead to more satisfying careers.

Workplace implications of expanded and innovative pharmacy roles

In this section of the survey, participants were introduced to the vision for pharmacy that was described in the Blueprint. From this document, 5 examples of potential expanded and innovative roles for pharmacists were presented. Brief descriptions of each of the 5 roles are as follows:

1. Collaborative drug therapy management — working with other health providers to perform patient assessments, make recommendations to adjust drug therapy, create care plans and closely monitor a patient's progress in order to improve health outcomes.

2. Public health outreach — working with communities and patients to focus on health promotion, disease prevention and chronic disease management.

3. Prescriptive authority — providing pharmacists with the authority for initiating and modifying drug therapy with the added responsibility of

TABLE 2 Pharmacists' perceptions on the future of pharmacy

	Strongly disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly agree (%)	Not sure (%)
Pharmacists sense that there is an urgency to change and begin taking on new responsibilities (<i>n</i> = 833)	1.6	17.6	16.4	43.8	18.7	1.8
Practising pharmacists are not prepared to take on an expanded role (<i>n</i> = 833)	5.9	37.6	24.2	25.6	3.0	3.7
New pharmacy graduates are not prepared to take on an expanded role (<i>n</i> = 833)	22.3	46.9	13.9	8.9	3.1	4.9
If pharmacists were not involved with technical duties they would have more time to take on an expanded role (<i>n</i> = 836)	0.8	3.6	6.3	47.2	40.9	1.1
An expanded role will not be offered extensively without new and flexible reimbursement models (<i>n</i> = 834)	0.4	3.0	7.7	37.4	48.2	3.4
Physicians are reluctant to work with pharmacists in an expanded role (<i>n</i> = 831)	2.0	25.6	18.8	35.5	12.5	5.5
Canadians are not willing to use the services of pharmacists in an expanded role (<i>n</i> = 829)	17.7	60.9	9.0	6.8	1.8	3.7
Taking on an expanded role will lead to pharmacists who are more satisfied with their careers (<i>n</i> = 830)	0.6	2.3	6.6	35.3	53.1	2.0

monitoring outcomes of drug therapy.

4. Patient self-care support — providing continued support for patient self-care, with the expectation that pharmacists would begin to manage more complex medical conditions that do not require the immediate attention of a physician.

5. Dispensing leadership — overseeing the dispensing process, which would be largely performed by regulated pharmacy technicians.

After reviewing these expanded role descriptions, participants were asked several questions to elicit their opinions regarding these potential new roles. The first questions focused on the potential human resources implications of the proposed roles. Many respondents thought that expanded pharmacist involvement in drug therapy management, public health outreach and prescribing would lead to an increase in workload (80.7% to 83.6%), liability (64.5% to 92.4%) and personal job-related stress (46.8% to 65.7%). However, the majority of respondents also stated that performing these 3 tasks would lead to an increase in job satisfaction (80.8% to 86.5%). Pharmacist responses suggested that they were not as concerned about the workload, liability and stress implications that might result from expanded involvement in patient self-care support and dispensing leadership.

The next group of questions expanded into broader potential implications of the proposed new roles (Table 3). Overall, more than 50% of

pharmacists felt that they were already performing these 5 expanded roles, including the tasks less traditionally performed by pharmacists (i.e., drug therapy management, prescribing and public health outreach). In addition, the vast majority of respondents (>70%) reported that they wanted and expected to be performing all of the proposed expanded roles within the next 5 years. Despite the fact that the majority of participants felt that they were already performing the new roles, 80% to 90% felt that additional training was needed to provide the less traditional / more clinical services such as drug therapy management, prescribing and public health outreach.

When asked about the acceptability of the proposed expanded roles with external stakeholders, most pharmacists felt that patient acceptance would be high, but less than half felt that physicians would be willing to work with pharmacists performing these activities. Finally, the majority of respondents (54.1% to 64.9%) felt that the current payment model would have to change to allow them to take on most of the proposed new roles.

Challenges and opportunities for pharmacy

In the final section of the survey, participants were presented with a list of potential challenges to making the proposed expanded roles a reality, along with a list of opportunities they were asked to rank from “biggest” to “smallest.” The top 5 responses are presented in Table 4 and Table 5.

TABLE 3 Pharmacists agreeing or strongly agreeing with aspects of expanded pharmacy roles

	Drug therapy management % (n)	Public health outreach % (n)	Prescribing and monitoring authority % (n)	Patient self-care support % (n)	Dispensing leadership % (n)
Currently performing this activity to some degree	73.6 (803)	50.3 (774)	55.1 (762)	64.8 (745)	68.4 (737)
Expect to be performing this activity within the next 5 years	79.7 (801)	66.0 (772)	70.2 (760)	70.6 (741)	73.9 (734)
Want to be performing this activity within the next 5 years	83.6 (801)	73.5 (771)	75.4 (760)	72.4 (744)	71.8 (734)
Currently have the skills required to take on this responsibility	62.5 (800)	56.7 (769)	51.7 (761)	71.0 (745)	80.6 (735)
There is need for additional training	88.4 (806)	78.9 (775)	89.2 (762)	61.0 (747)	36.2 (739)
The public is ready to accept pharmacists performing this activity	76.8 (803)	80.9 (772)	68.7 (764)	87.8 (747)	76.9 (736)
Physicians are ready to work with pharmacists performing this activity	33.4 (805)	43.8 (772)	22.0 (763)	46.8 (735)	56.8 (785)
Current payment model will need to change for me to perform this activity	60.5 (802)	64.9 (770)	64.9 (758)	54.1 (744)	36.7 (732)

Discussion

Considering that the profession of pharmacy in Canada is currently attempting to move toward the vision outlined in the Blueprint and to implement its recommendations, it is timely and valuable that this survey has collected the thoughts of pharmacists from across the country regarding the challenges and opportunities related to this monumental and historic endeavour.

It was not surprising that most pharmacists reported that they currently spend the bulk of their day on dispensing duties. This finding is supported by the Activity Based Costing Study performed in British Columbia in 2006, which showed that pharmacists in community practice spend approximately 60% of their time on dispensing duties.¹²

Although previous attempts to create system-wide pharmacist practice change in Canada have largely been unsuccessful, the results of this survey suggest that future attempts may be more effective. This is based on the fact that the majority of pharmacists surveyed felt a strong sense of urgency to change their practice, coupled with the finding that the majority also wanted and expected to change the way they work within the next 5 years. This suggests that the profession may be ready to move past the “contemplative” stage of change and into the “action” stage, where true progress toward the practice change may be possible.¹³ Some evidence of this can be observed from the results of the Alberta Pharmacy Practice Models Initiative, which were released in April 2010. The success of

TABLE 4 Pharmacists’ ranking of challenges

Ranking	Challenge
1	Governments unwilling to fund expanded/innovative roles
2	Physicians’ scepticism about pharmacists’ skills
3	Pharmacists reluctant to take on new roles based on uncertainty of compensation
4	Access to comprehensive patient information
5	Changing the traditional image of the pharmacist

TABLE 5 Pharmacists’ ranking of opportunities

Ranking	Opportunity
1	Better health outcomes for patients
2	Ensuring the pharmacy profession continues to be viable and has a role other than dispensing
3	Enhanced reputation among other health professionals
4	Greater respect from the general population
5	Closer relationship with patients

this large practice change pilot project provides tangible evidence that it is now possible for widespread practice change to occur in Canada.¹⁴

When presented with the 5 potential expanded future roles for pharmacists, we found that pharmacists felt ready and were prepared to take on new roles. Despite the fact that pharmacists generally felt that the new roles would lead to an increase in workload, liability and stress, they seemed will-

Mise en pratique des connaissances

- *L'avenir de la pharmacie passe par l'atténuation du rôle traditionnel de distribution des médicaments au profit de l'augmentation des tâches cliniques.*
- *Les pharmaciens en exercice semblent enthousiastes à l'idée d'assumer ces nouveaux rôles.*
- *Pour se préparer à la transition, les pharmaciens croient qu'une formation supplémentaire serait nécessaire.*
- *La modification globale de la pratique demeure un défi pour la profession de la pharmacie.*

ing to accept these risks because they felt that these roles would result in improved patient health outcomes and better personal job satisfaction. Although financial considerations and personal job security did not appear to be motivating factors, most participants agreed that many if not all of the proposed expanded roles could

not be widely implemented without changes to pharmacist reimbursement models.

When considering the proposed expanded roles, survey participants were clear regarding how they felt the changes would be accepted by those affected. Overall, pharmacists felt that patients would be accepting of the new vision for pharmacy. However, participants were sceptical that physicians would be willing to accept pharmacists taking on new roles. Considering the large collaborative role that physicians will play in the future vision for pharmacy, it will be important to determine if this perceived barrier to change is real or not.

Some of the survey results were surprising and at times contradictory. A large proportion of pharmacists reported that they were already performing many of the expanded roles described in the Blueprint. This included 73.6% who claimed to be providing drug therapy management and 55.1% who claimed to be prescribing, despite no known objective evidence that these services are actually being provided on such a widespread scale. In addition, despite the finding that 73.6% of pharmacists were already providing drug therapy management, only 62.5% felt that they had the skills to provide the service and 88.4% felt that they required additional training before they could provide the service. A majority (61%) even felt that additional training was needed for them to provide patient self-care support, which is something pharmacists have been involved in to some degree for quite some time. It is difficult to interpret these findings. However, this may indicate that pharmacists, although realizing their unique skill set, are not fully confident in expanding into new roles without specific training on how to properly use their skills, despite the possibility that they are already providing the service to a limited number

of their patients.

Certain limitations of the survey results must be recognized. The primary practice setting for approximately 16% of all respondents was outside community or hospital practice. In addition, approximately 30% of the pharmacists who responded were managers, owners or directors. Thus, their responses may have differed from the typical practising pharmacist. Second, although pharmacists across the country were notified of the opportunity to take part in the survey, there may have been some who were not aware of the survey and thus did not take part. In addition, as with all surveys, participants were self-reporting information about their practices, which can lead to inconsistencies and inaccuracies related to recall of information. Lastly, it must be kept in mind that British Columbia, Quebec and Ontario were underrepresented, while Manitoba and Saskatchewan were overrepresented. The fact that these data are from 2007 should not affect the interpretations drawn from them, since widespread practice change has not been achieved in Canada since the data were collected.

Conclusion

Pharmacists have responded positively to the proposed vision for the future of pharmacy. It is apparent that they feel a sense of urgency to adopt the new vision for the profession and are eager to move from the traditional dispensing role to an expanded clinical role that more fully utilizes their unique skills and knowledge. Although some feel that they are ready for this change now, the majority think that additional training is needed to prepare them for the change. Despite the generally positive response from practising pharmacists, achieving system-wide practice change is a challenge that the profession of pharmacy continues to face. ■

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