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Needs Assessment of Specialization in Pharmacy in Canada



CANADIAN
PHARMACISTS
ASSOCIATION

ASSOCIATION DES
PHARMACIENS
DU CANADA

This report was commissioned by the Blueprint for Pharmacy and produced by Intergage Consulting Group Inc. to communicate the results of an assessment to determine the need, demand and feasibility for the establishment of a process for the formal recognition and certification of pharmacist specialization in Canada.



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EXECUTIVE SUMMARY

INTRODUCTION

Since the mid-1980s, a number of pharmacy organizations in Canada have initiated projects to assess and advance the concept of pharmacist specialization. Most recently, a Task Group on Specialization in Pharmacy in Canada was established in 2012 to follow up on action ideas from a 2010 Continuing Professional Development/Continuing Education (CPD/CE) Policy Summit on Advancing Innovation and Excellence in Pharmacy Practice, which focused partly on the implementation of a framework and system for the recognition of specialties and special areas of pharmacy practice in Canada. The work of the Task Group included the submission of a proposal for funding to the Blueprint for Pharmacy in 2013 for a needs assessment of specialization in pharmacy in Canada.

In the fall of 2014, a multi-stakeholder Project Advisory Group was appointed by the Blueprint for Pharmacy to oversee an assessment of the need, demand and feasibility for the establishment of a process for the formal recognition and certification of pharmacist specialization in Canada. What follows is the report from this assessment.

PURPOSE

The purpose of this report is to outline the results of an assessment to determine the need and demand for the recognition of pharmacist specialization and make recommendations regarding the need, demand and feasibility of a specialty certification process for pharmacists in Canada. The assessment was originally intended to include an examination of advanced pharmacist practice. However, in the interest of providing a clear distinction between advanced practice and specialization and a more targeted focus to the scope of the assessment, it was determined by the Project Advisory Group that this assessment would focus strictly on pharmacist specialization.

METHODOLOGY

This assessment included a number of methodologies:

- Literature and high level jurisdictional review
- Interview consultations
- National survey of pharmacists and pharmacist employers
- Two roundtable consultations with pharmacy thought-leaders/stakeholders

SUMMARY OF FINDINGS

This assessment found evidence of interest and demand for pharmacist specialization and for the formal certification and recognition of specialization in pharmacy practice in Canada (although a Canadian certification process may not be feasible).

The Need for Common and Supported Definitions

There is a compelling need for the profession to reach agreement and use common definitions in the discourse around pharmacist specialization. This assessment found that there is significant disagreement and debate within the profession about what constitutes pharmacist specialization and associated terms. For example, there is confusion among many pharmacists about the distinction

between pharmacist specialization and advanced practice. Definitions for these terms should be clear, concise, straightforward and supported by Canadian pharmacy organizations and other key stakeholders. It is widely recognized that agreement on the definition of specialization and areas of specialization are critical foundational steps toward the formal recognition of pharmacist specialization in Canada.

There is a distinct difference between how pharmacists in community practice view pharmacist specialization as compared to pharmacists in hospital practice. Based on responses from the national survey as part of this assessment, community pharmacists tend to identify specialization as a higher level of certification in areas of disease state management (such as diabetes, asthma, smoking cessation, etc.). In contrast, hospital pharmacists tend to view specialization in terms of specific medical conditions or medically complex patients (such as oncology, geriatrics, etc.). The latter areas are more closely aligned with the draft definitions of specialization developed by the Task Group on Specialization in Pharmacy in Canada. This distinct understanding by community and hospital pharmacists reinforces the need for the development of commonly understood and accepted terms around specialization.

Task Group on Specialization in Pharmacy in Canada

In January 2012, a Task Group on Specialization in Pharmacy in Canada was established to follow-up on the action ideas from a 2010 CPD/CE Policy Summit on Advancing Innovation and Excellence in Pharmacy Practice, hosted by the Canadian Council on Continuing Education in Pharmacy (CCCEP) and the Canadian Pharmacists Association (CPhA). The Task Group is composed of representatives from CCCEP, CPhA, Pharmacy Examining Board of Canada (PEBC), Association of Faculties of Pharmacy of Canada (AFPC), Canadian Society of Hospital Pharmacists (CSHP) and National Association of Pharmacy Regulatory Authorities (NAPRA, as observer). The Task Group has been working on the draft definition and description of key concepts regarding specialization and certification, and it circulated a discussion paper on certification and specialization to Canadian pharmacy organizations in 2014.

Evolving and Maintaining the Integrity of the Profession

The changing nature of the delivery of health care services and the pharmacist profession itself has created opportunities for pharmacists to provide an expanded range of services within their defined and authorized scopes of practice. As pharmacists become more integral to the drug therapy decision-making and patient-monitoring activities within the health care system, key stakeholders must better understand and appreciate the breadth and depth of pharmacists' scope of practice and potential areas of specialization (CCP, 2010).

At this time, pharmacist specialization is not formally recognized in Canada; specialist titles are not protected by regulations and most specialty services are not reimbursed. In addition, community pharmacy design and workflow are not viewed as supporting the provision of specialized services to patients. This assessment found that Canadian pharmacists are, nonetheless, currently operating as specialists – either formally certified or uncertified – and these pharmacists have a limited ability to promote and expand the delivery of their specialized services.

Unlike other health professions with standardized processes for specialty certification and recertification, there is no easy way to provide assurances that pharmacists who provide specialty

services in Canada meet the required level of knowledge, skills and experience. This is an ongoing risk to the integrity of the profession. It is incumbent on the pharmacist profession to ensure that those who offer specialized pharmacist services meet the standards required by the profession and by the health care system. This is important for all stakeholders including the public, government, regulators, private payers, other health professionals and pharmacists.

Support for Formal Processes for Recognition and Certification of Pharmacist Specialization

This assessment found support for a formal process for recognizing pharmacist specialization in Canada (e.g., regulatory); however, findings are inconclusive as to whether a formal certification process should be established and operated in Canada.

Drivers toward Specialization

The majority of those consulted for this assessment through the interview and stakeholder consultations reinforce the importance that the primary drivers toward pharmacist specialization should be anchored in improvements to patient care, as well as providing assurances to key stakeholders that pharmacists offering specialized services meet a defined level of training, applied skills and competencies. Specialization allows the profession to be proactive and remain ahead of role evolution. In addition, it is recognized that pharmacist specialists can contribute to greater efficiencies within the health system.

Increasing Awareness of the Variety of Roles for Pharmacists

This assessment's findings indicate that the Canadian public will play a large role in driving the demand for pharmacist specialization; however, it is generally felt that the public is not aware of the variety of roles that pharmacists can assume within the health care system and collaborative care models. As with other health care professions, a key driver towards the role evolution of the pharmacist profession will be the acceptance and demand for these services from the Canadian public. The findings, particularly those from the national survey, indicate that pharmacists and employers alike perceive public awareness and support for pharmacist specialization to be very low, along with awareness and support from a number of other key stakeholder groups, including employers and other health professionals. Within community pharmacy, public demand is viewed as the primary driver for employers to support the introduction of services offered by pharmacist specialists.

Feasibility of Introducing a Formal Certification Process for Pharmacist Specialization in Canada

The introduction of a Canadian certification process for pharmacist specialization would require sustainable funding and a dedicated organization to lead it.

Interview and roundtable consultations and a review of the American-based Board of Pharmacy Specialties (BPS) post-licensure certification credentialing body provides evidence that the introduction of a robust formal process for the certification of pharmacist specialization in Canada may not be feasible given the size of the Canadian pharmacy workforce and its current demand for certification. Many of those consulted questioned whether there would be sufficient demand from pharmacists to sustain the infrastructure required to support a Canadian pharmacist specialization certification process.

While there does not appear to be a high level of demand for pharmacist specialization among community pharmacist employers, Canadian pharmacists, generally, also do not appear to see a

compelling need to become specialized. This study found the greatest demand for pharmacist specialization to be coming from hospital and long-term care settings. Although a high percentage of those surveyed (both pharmacists and employers) indicate an interest in and support for pharmacist specialization, interview consultations reveal a sense that only a highly motivated group of pharmacists in Canada will pursue specialty certification.

Trends in the United States (US) indicate an increasing upwards trend in pharmacists becoming certified in specialty areas, and this is predicted to continue to grow significantly over the next 10 years. In an interview with the Executive Director of BPS, he indicated that the increase in demand among pharmacists for specialty certification may be driven by:

- Recognition by peers
- University and college requirements that pharmacy faculty members obtain BPS certification
- A gradual increase in the number of employers who require certification

However, Canada is at least a decade behind the US in the areas of pharmacy education changes (e.g., Doctorate of Pharmacy degree), the expansion of residency programs to support specialization and demand for specialization driven by employers. It may take a considerable amount of time for these changes to take hold (not to mention the required regulatory changes) which will drive greater demand for pharmacist specialization in Canada. Even with increasing demand among Canadian pharmacists to pursue specialty certification, there may not be a large enough market to sustain a “made in Canada” pharmacist specialty certification process. Partnerships with US specialty certification bodies to “Canadianize” and deliver specialty certification examinations in Canada could be a viable option that requires further exploration.

In addition to Canadian pharmacists, New Zealand and Australian pharmacists utilize international certification bodies such as BPS to gain specialist certification as their respective countries do not have their own credentialing systems. BPS has indicated an interest, where it makes sense, to adapt their certification process to the Canadian context. There is some concern that there may not be enough demand from Canadian pharmacists in some areas of BPS certification (such as cardiology, critical care, pain and palliative care, etc.) to justify the costs that would be associated with “Canadianizing” the certification process. However, from the assessment’s roundtable consultations and survey responses, it is noted that demand from Canadian pharmacists in the areas of pharmacotherapy and geriatrics may be great enough to support the creation of a “made in Canada” certification process or the adaptation of the US certification processes to the Canadian context.

Provincial Jurisdiction

Canadian provincial governments and regulatory authorities have jurisdiction over defining the scopes of practice for pharmacists and, as a result, these vary significantly across Canada. Even if pharmacists in Canada achieved consensus on a definition of pharmacist specialization, the practice rights, the organization of the professional workforce and formal recognition of specialty certification would remain provincial jurisdictions. This is a further barrier to the creation of a national, standardized approach to pharmacist specialization.

Through this assessment, evidence was found of interest and demand for pharmacist specialty practice and for formal recognition of specialty pharmacy practice in Canada through professional certification (although a Canadian certification process may not be feasible).

RECOMMENDATIONS

Based on the key findings from this assessment, the following recommendations are being made to help inform the most appropriate model for Canada to support the formal recognition and certification of pharmacist specialization.

1. Obtain Agreement on Definitions of Pharmacist Specialization in Canada

It is recommended that the Blueprint for Pharmacy, the Task Group on Specialization in Canada and other key stakeholders seek agreement within the profession on definitions regarding what constitutes pharmacist specialization as opposed to advanced practice, and how to define different areas of specialization within the profession.

2. Research and Identify a Formal Process for the Recognition of Canadian Pharmacist Specialization

It is recommended that the Blueprint for Pharmacy and its partners examine possible regulatory models and processes for the formal recognition of pharmacist specialization in Canada. This would require a comparative review of other jurisdictions, other health professions' specialization recognition processes and consultations with respective regulatory authorities. It is clear from this assessment that a process for recognition of pharmacist specialization is needed, but it is beyond the scope of this report to make recommendations on the optimal process.

3. Research Potential Processes for the Formal Certification of Pharmacist Specialization in Canada

It is recommended that further research be undertaken to determine the best model for the certification of pharmacist specialists in Canada. **Key options include:**

Adapt Existing Certification Processes to the Canadian Context

Investigate BPS and other specialization certification bodies (e.g., Commission for Certification in Geriatric Pharmacy [CCGP]) to confirm their openness and to determine the associated benefits and costs of adapting their pharmacist specialty programs and processes to the Canadian context, including the costs of sustaining these processes.

Formal Certification Obtained through International Certification Processes

Assess the costs and benefits of continuing to use the credentialing processes of international certification organizations without modifications to the Canadian context. The assessment might consider pass/fail rates for Canadian pharmacists, program costs, potential negative impacts of specialty certification by an international credentialing body as opposed to a Canada body, etc.

Introduce a Canadian Model for the Formal Certification of Pharmacist Specialists

If required, undertake a feasibility study to examine the benefits and financial sustainability of a “made in Canada” pharmacist specialization certification program. The assessment should include a comparative cost-benefit analysis of various options, including type and varying forms of program and service offerings.

4. Conduct Outreach to Increase Stakeholder Understanding and Awareness of the Potential for Pharmacist Specialization

It is expected that demand for pharmacist specialization will be driven by the public, other health care providers, policy makers and regulators.

It is recommended that targeted stakeholder outreach and engagement be undertaken in order to increase the awareness of the scope of services that pharmacists can offer within the Canadian health care system and through their involvement in collaborative teams. Increasingly, public and other key stakeholder understanding of the potential for expanded roles for pharmacists (including specialization) is viewed as a key step in influencing demand for the formal certification and recognition of pharmacist specialization. Outreach and engagement should be targeted and tailored to the following groups:

- Canadian pharmacists
- Representatives from provincial/territorial pharmacist associations
- Other health professionals
- Senior leaders in various provincial/territorial health ministries and pharmacy regulatory bodies
- Canadian public, to increase understanding and support for expanded roles of pharmacists, including specialization within the Canadian health care system.

SOMMAIRE EXÉCUTIF

INTRODUCTION

Depuis le milieu des années 1980, un certain nombre de regroupements du secteur de la pharmacie ont amorcé des projets visant à examiner et à faire progresser l'idée de la spécialisation en pharmacie au Canada. Plus récemment, en 2012, le Groupe de travail sur la spécialisation en pharmacie au Canada a été créé afin de donner suite aux idées issues d'un sommet tenu en 2010 sur les politiques en matière de perfectionnement professionnel continu (PPC) et de formation continue (FC) sur l'avancement de l'innovation et l'excellence dans la pratique de la pharmacie, qui a notamment porté sur la mise en œuvre d'un cadre et de mécanismes pour la reconnaissance de spécialités et de domaines spécialisés dans la pratique de la pharmacie au Canada. Or, le Groupe de travail a préparé une proposition destinée au Plan directeur pour la pharmacie pour le financement d'une évaluation de la pertinence de la spécialisation en pharmacie au pays.

À l'automne 2014, un groupe consultatif composé d'intervenants multiples a été constitué à titre de projet par le Plan directeur pour la pharmacie afin de piloter cette analyse de la nécessité, de la demande et de la faisabilité en ce qui concerne la mise sur pied d'une démarche de reconnaissance formelle et de certification en pharmacie spécialisée au Canada. Voici donc le rapport de cette évaluation.

OBJET

Le présent rapport résume les résultats de l'évaluation visant à déterminer la pertinence et la demande en ce qui concerne la reconnaissance de la pharmacie spécialisée, et à formuler des recommandations sur la pertinence, la demande et la faisabilité d'instaurer une démarche de reconnaissance de spécialisation en pharmacie au Canada. À l'origine, l'évaluation devait également porter sur l'examen de la pratique avancée des pharmaciens, mais étant donné la volonté de faire une distinction franche entre la pratique avancée et la spécialisation et de préciser davantage la portée de l'évaluation, le groupe consultatif du projet a décidé que ses travaux ne porteraient que sur la spécialisation des pharmaciens.

MÉTHODOLOGIE

Plusieurs méthodes ont été utilisées pour la réalisation de l'évaluation, dont :

- un examen de la documentation et une analyse contextuelle;
- des consultations par entrevues;
- une enquête nationale auprès des pharmaciens et des employeurs de pharmaciens;
- deux tables rondes avec des intervenants et chefs de file du secteur de la pharmacie.

SOMMAIRE DES CONSTATS

L'évaluation a révélé une nécessité ainsi qu'une demande en matière de spécialisation de la pharmacie, de certification et de reconnaissance formelle de la pratique spécialisée de la pharmacie au Canada, bien que l'instauration de mécanismes de certification canadiens pourrait ne pas être possible.

La nécessité d'en venir à des définitions communes et consensuelles

Il est impératif que la profession en vienne à un consensus quant aux définitions communes à employer dans son discours entourant la spécialisation de la pharmacie. L'évaluation a en effet permis de constater un désaccord considérable, voire un débat au sein de la communauté de la pharmacie en ce qui concerne la nature même de la spécialisation en pharmacie et la terminologie connexe. Par exemple, il y a confusion chez les pharmaciens quant à la distinction entre la spécialisation et la pratique avancée. Or, la définition de ces termes se doit d'être claire, concise et sans équivoque, et de recevoir l'aval de tous les regroupements canadiens de pharmaciens et autres intervenants clés. Il est en effet largement reconnu qu'un consensus sur la définition de la spécialisation et sur les domaines de spécialité est fondamentalement essentiel à la reconnaissance de la spécialisation en pharmacie au Canada.

La façon dont les pharmaciens en contexte communautaire perçoivent la spécialisation diffère profondément de la vision de leurs homologues qui œuvrent en milieu hospitalier. En effet, les réponses obtenues lors de l'enquête nationale menée dans le cadre de cette évaluation ont révélé que les pharmaciens communautaires ont tendance à voir la spécialisation comme une certification plus avancée en ce qui concerne la prise en charge pour des états de santé particuliers (comme le diabète, l'asthme, le tabagisme, etc.). De leur côté, les pharmaciens qui pratiquent dans les hôpitaux croient que la spécialisation vise le traitement de pathologies précises ou les soins aux patients ayant des besoins complexes (oncologie, gériatrie, etc.). Or, la perception de ce dernier groupe concorde plus étroitement avec les définitions provisoires formulées par le Groupe de travail sur la spécialisation en pharmacie au Canada. Cet écart de perception entre les pharmaciens communautaires et ceux du milieu hospitalier renforce la nécessité d'établir une terminologie commune et consensuelle sur la spécialisation.

Le Groupe de travail sur la spécialisation en pharmacie au Canada

Le Groupe de travail sur la spécialisation en pharmacie au Canada a été créé en janvier 2012 afin de donner suite aux idées issues d'un sommet sur les politiques de PPC/FC pour l'avancement de l'innovation et de l'excellence dans la pratique de la pharmacie organisé par le Conseil canadien de l'éducation permanente en pharmacie (CCEPP) et l'Association des pharmaciens du Canada (APhC). Le Groupe de travail est composé de représentants du CCEPP, de l'APhC, du Bureau des examinateurs en pharmacie du Canada (BEPC), de l'Association des facultés de pharmacie du Canada (AFPC), de la Société canadienne des pharmaciens d'hôpitaux (SCPH) et de l'Association nationale des organismes de réglementation de la pharmacie (ANORP, à titre d'observateurs). Le Groupe de travail se penche présentement sur l'élaboration d'une définition et de descriptions des notions fondamentales entourant la spécialisation et la certification; en 2014, il a diffusé un document de travail sur la certification et la spécialisation destinée aux organismes canadiens de pharmacie.

Maintenir et faire évoluer l'intégrité de la profession

La nature changeante de la prestation des services de santé et de la profession de la pharmacie elle-même a donné lieu à des occasions pour les pharmaciens d'offrir un éventail élargi de services sans toutefois outrepasser les balises de leur champ de pratique autorisé et clairement défini. Alors que les pharmaciens jouent un rôle de plus en plus important dans le secteur de la santé en ce qui

a trait à la prise de décisions entourant les pharmacothérapies et aux activités de suivi des patients, les principaux intervenants doivent mieux comprendre et apprécier l'ampleur et la profondeur du champ de pratique des pharmaciens ainsi que les domaines de spécialisation potentiels (Council on Credentialing in Pharmacy, 2010).

À l'heure actuelle, la spécialisation en pharmacie n'est pas formellement reconnue au Canada; les titres de spécialistes ne sont protégés par aucune réglementation et la plupart des services spécialisés ne sont pas remboursés. Qui plus est, la nature même de la pratique de la pharmacie communautaire et la façon dont se déroulent les activités ne sont pas perçues comme facilitant la prestation de services spécialisés aux patients. Pourtant, l'évaluation a permis de constater que les pharmaciens canadiens pratiquent comme des spécialistes — qu'ils soient formellement certifiés à ce titre ou non —, mais qu'ils ne sont pas pleinement en mesure de promouvoir et d'élargir la prestation de leurs services spécialisés.

Contrairement aux autres professions de la santé pour lesquelles des mécanismes normalisés de certification spécialisée et de renouvellement de la spécialisation ont été établis, il n'est toujours pas possible de garantir aisément que les pharmaciens qui offrent des services spécialisés possèdent les connaissances, les compétences et l'expérience nécessaires à une telle pratique, une situation qui risque de nuire à l'intégrité de la profession. Il incombe donc au secteur de la pharmacie de s'assurer que les pharmaciens qui offrent des services spécialisés satisfont aux normes exigées par la profession et par le système de santé. Cela revêt une importance pour toutes les parties prenantes, y compris le public, les gouvernements, les organismes de réglementation, les payeurs du secteur privé, les autres professionnels de la santé et les pharmaciens eux-mêmes.

Appui envers des mécanismes formels de reconnaissance et de certification des pharmaciens spécialistes

L'évaluation dont il est question ici a révélé un appui pour la mise sur pied de mécanismes formels de reconnaissance de la spécialisation en pharmacie au Canada (une réglementation, p. ex.), mais n'a pas permis de conclure clairement si de tels mécanismes doivent ou non être établis et mis en application au pays.

Éléments moteurs en faveur de la spécialisation

La majorité des personnes rencontrées pour les besoins de l'évaluation, par entrevues ou par consultations, ont insisté sur l'importance d'arrimer les principaux moteurs en faveur de la spécialisation en pharmacie à l'amélioration des soins aux patients et à la nécessité de garantir aux principaux intervenants que les pharmaciens prodiguant des services spécialisés possèdent la formation ainsi que les aptitudes et compétences appliquées nécessaires. La spécialisation permettrait à la profession d'agir de façon proactive et même de piloter l'évolution du rôle des pharmaciens, les pharmaciens spécialistes étant bien placés pour contribuer à l'amélioration de l'efficacité du système de santé.

Sensibiliser davantage à la diversité du rôle des pharmaciens

Bien que les résultats de l'évaluation indiquent que la population canadienne sera un moteur important pour la spécialisation des pharmaciens, on estime généralement que le public ne connaît pas l'éventail de rôles que ces professionnels peuvent jouer dans le réseau de la santé et au sein des équipes de soins en collaboration. En effet, comme pour les autres professions de la santé, l'un des

principaux moteurs de l'évolution du rôle des pharmaciens sera l'acceptation et la demande en ce qui concerne ces services par la population canadienne. L'information recueillie, particulièrement au moyen de l'enquête nationale, indique que tant les pharmaciens que les employeurs sont d'avis que la sensibilisation publique et le soutien envers la spécialisation en pharmacie sont très faibles, et il en est de même pour un certain nombre de groupes d'intervenants, y compris les employeurs et les autres professionnels de la santé. En revanche, aux yeux de la communauté de la pharmacie, la demande du public est perçue comme le principal moteur qui incitera les employeurs à accepter l'intégration des services offerts par les pharmaciens spécialistes.

Faisabilité de l'instauration de mécanismes formels pour la spécialisation en pharmacie au Canada

L'instauration de mécanismes de certification spécialisée au pays nécessiterait du financement durable ainsi que la désignation d'un organisme pour piloter les activités.

Les entrevues et les discussions en tables rondes, ainsi que l'examen des procédures de certification au-delà du permis d'exercer du Board of Pharmacy Specialties (BPS) aux États-Unis, ont tous montré que l'instauration de mécanismes rigoureux pour la certification des pharmaciens spécialistes au Canada pourrait ne pas être possible vu l'ampleur des effectifs pharmaciens au pays et la faible demande, actuellement, pour une telle certification. Nombre de répondants doutent d'ailleurs que la demande soit suffisante chez les pharmaciens pour soutenir l'infrastructure qu'imposerait la certification des pharmaciens spécialistes canadiens.

En effet, les employeurs de pharmaciens en contexte communautaire semblent peu intéressés par la spécialisation, et il en serait de même pour les pharmaciens canadiens en général. En fait, l'étude a révélé que la plus grande demande pour la spécialisation proviendrait du milieu hospitalier et du secteur des soins de longue durée. Bien qu'une proportion importante des répondants (tant pharmaciens qu'employeurs) ait montré un intérêt et un soutien envers la spécialisation, les entrevues et les consultations ont plutôt révélé que seul un petit groupe de pharmaciens hautement motivés souhaitent entreprendre une démarche de spécialisation.

Pourtant, aux États-Unis, les pharmaciens ont de plus en plus tendance à se spécialiser dans des domaines particuliers et l'on s'attend à ce que le phénomène augmente considérablement au cours des dix prochaines années. En entrevue, le directeur général du BPS a indiqué que, selon lui, cette demande accrue est le résultat des facteurs suivants :

- la reconnaissance des pairs;
- les collèges et universités imposant la certification du BPS aux membres de leur faculté de pharmacie;
- une augmentation graduelle du nombre d'employeurs exigeant cette certification.

Le Canada affiche pour sa part un retard d'au moins dix ans par rapport à ses voisins du sud en ce qui concerne l'évolution de la formation des pharmaciens (le doctorat en pharmacie, p. ex.), l'élargissement des programmes de résidence pour appuyer la spécialisation et l'exigence des employeurs d'obtenir une certification spécialisée. De tels changements risquent de prendre un temps considérable à s'enraciner, sans parler des modifications nécessaires à la réglementation, afin de stimuler la demande pour la spécialisation. Même avec un intérêt accru de la part des pharmaciens canadiens pour la certification spécialisée, la taille de ce marché risque d'être insuffisante

pour soutenir des mécanismes de certification « purement canadiens ». Des partenariats avec les organismes de certification américains visant à « canadianiser » les examens de spécialisation pour les pharmaciens d'ici pourraient être une option viable et mériteraient d'être examinés de plus près.

Du reste, les pharmaciens de la Nouvelle-Zélande et de l'Australie font appel à des organismes internationaux tels que le BPS pour obtenir leur certification en tant que spécialistes, étant donné qu'aucun système de spécialisation n'existe dans leur propre pays. Le BPS s'est d'ailleurs montré intéressé, dans certains cas, à adapter ses mécanismes de certification au contexte canadien, quoique l'on doute que la demande soit assez forte au Canada dans certains domaines de spécialisation (en cardiologie, p. ex., ou en soins intensifs, en traitement de la douleur, en soins palliatifs, etc.), pour justifier les coûts associés à la « canadianisation » de mécanismes de certification de l'étranger. Cela dit, les consultations en tables rondes et l'enquête nationale auraient révélé un intérêt suffisant chez les pharmaciens canadiens dans les domaines de la pharmacothérapie et de la gériatrie pour justifier l'instauration de mécanismes de certification canadiens ou l'adaptation du modèle américain pour les pharmaciens du pays.

Ressort provincial

Au Canada, ce sont les gouvernements et organismes de réglementation provinciaux qui ont la responsabilité de définir le champ de pratique des pharmaciens. Par conséquent, celui-ci varie considérablement d'un bout à l'autre du pays. Or, même si les pharmaciens d'un océan à l'autre adoptaient une définition consensuelle de la spécialisation en pharmacie, le droit d'exercer, l'organisation des effectifs professionnels et la reconnaissance des spécialités demeureraient de ressort provincial. Voilà un autre obstacle nuisant à la mise sur pied de mécanismes normalisés d'envergure nationale pour la spécialisation des pharmaciens canadiens.

L'évaluation des besoins a ainsi révélé un intérêt et une demande en ce qui concerne la pratique spécialisée de la pharmacie et la reconnaissance au Canada de la spécialisation en pharmacie par le truchement d'une certification professionnelle, bien que cela puisse ne pas être possible en contexte canadien.

RECOMMANDATIONS

À la lumière des constats s'étant dégagés de l'évaluation, des recommandations ont été formulées afin d'éclairer la réflexion quant au modèle qui appuierait le mieux la reconnaissance de la spécialisation en pharmacie et la certification des pharmaciens spécialistes au Canada.

1. Adopter une définition consensuelle de la spécialisation en pharmacie au Canada

Il est recommandé que le Plan directeur pour la pharmacie, le Groupe de travail sur la spécialisation en pharmacie au Canada et d'autres intervenants clés obtiennent un consensus au sein de la profession quant à la définition de ce que constitue la spécialisation en pharmacie, par opposition à la pratique avancée, et à la façon de définir les divers domaines de spécialisation au sein de la profession.

2. Cerner et définir une démarche formelle pour la reconnaissance de la spécialisation des pharmaciens canadiens

Il est recommandé que le Plan directeur pour la pharmacie et ses partenaires examinent des modèles de réglementation et des mécanismes de reconnaissance de la spécialisation en pharmacie qui conviendraient au contexte canadien. Cet examen pourrait nécessiter une analyse comparative de modèles utilisés dans d'autres pays et de mécanismes de reconnaissance d'autres professions de la santé ainsi que des consultations avec les organismes de réglementation concernés. S'il est clair, au terme de l'évaluation, que des mécanismes de reconnaissance de la spécialisation en pharmacie sont requis, la formulation de recommandations quant à la nature exacte de tels mécanismes s'inscrit hors de la portée du présent rapport.

3. Examiner des mécanismes potentiels pour la certification formelle des pharmaciens spécialistes au Canada

Il est recommandé de poursuivre les recherches afin de déterminer le meilleur modèle de certification des pharmaciens spécialistes pour le Canada. Les principales options sont les suivantes :

Adapter au contexte canadien les mécanismes de certification d'ailleurs

Approcher le BPS et d'autres organismes de certification spécialisée (la Commission for Certification in Geriatric Pharmacy, p. ex.) afin de vérifier leur ouverture à cet égard et de déterminer les avantages et les coûts qui seraient associés à l'adaptation de leurs modèles au contexte canadien, y compris les coûts de maintien des programmes et mécanismes.

Permettre la certification par le truchement de mécanismes de certification internationaux

Évaluer les coûts et les avantages qui seraient associés au maintien du recours à des mécanismes de spécialisation d'organismes de certification internationaux sans les adapter au contexte canadien. Une telle évaluation devrait tenir compte des taux de réussite et d'échec des pharmaciens canadiens, des coûts des programmes et des répercussions négatives potentielles de faire appel à des organismes de certification sur la scène internationale plutôt qu'à un organisme canadien, etc.

Créer un modèle canadien pour la certification des pharmaciens spécialistes

S'il y a lieu, réaliser une étude de faisabilité pour examiner les avantages et la viabilité financière de la création d'un programme de certification des pharmaciens spécialistes purement canadien. Une telle étude devrait comprendre une analyse comparative coûts-avantages des diverses options possibles et tenir compte des différents types et formes de programmes et services.

4. Réaliser des activités de rayonnement auprès des intervenants afin de rehausser leur compréhension et de les sensibiliser au potentiel que présente la spécialisation des pharmaciens

L'on s'attend à ce que la demande à l'égard de la spécialisation des pharmaciens soit propulsée par l'intérêt du public, des autres prestataires de soins de santé, des décideurs et des organismes de réglementation.

Il est recommandé de réaliser des activités ciblées de rayonnement et d'engagement auprès des intervenants afin de les sensibiliser à l'éventail de services que les pharmaciens pourraient offrir dans le réseau canadien de la santé et au sein d'équipes de soins en collaboration. Comme la compréhension de la population et d'intervenants clés quant au potentiel que présente l'élargissement du rôle du pharmacien (dont la pratique spécialisée) est de plus en plus perçue comme un facteur déterminant dans la volonté d'en venir à la certification spécialisée et à la reconnaissance des pharmaciens spécialisés, il conviendrait de cibler les activités de rayonnement et d'engagement en les adaptant aux groupes suivants :

- les pharmaciens canadiens;
- les représentants des associations de pharmaciens provinciales et territoriales;
- les autres professionnels de la santé;
- les hauts dirigeants d'organismes de réglementation de la pharmacie et de ministères de la santé des provinces et territoires;
- la population canadienne, pour qu'elle comprenne mieux et soutienne le rôle élargi des pharmaciens, dont celui des pharmaciens spécialistes, dans le secteur canadien de la santé.

GLOSSARY OF KEY TERMS

This project was designed to assess the need, feasibility and support for the formal recognition and certification of pharmacist specialization in Canada. It was important, therefore, to have a common set of definitions to ensure respondents were using the same frame of reference in responding to interview and survey questions.

For the purpose of this assessment, the Specialization Project Advisory Group chose to define pharmacist specialists, pharmacist specialist certification and advanced pharmacist practice as outlined below. There was no consensus on definitions from the Advisory Group; rather, the Advisory Group compromised on definitions from the *Consultation Document – Definitions of Advanced Practice and Specialization*, prepared by the Task Group on Specialization in Pharmacy (2014). The purpose of this consultation document was to begin a dialogue and obtain feedback in order to develop a consensus on the working definitions of the terms *advance practice* and *specialization*. It was the intent that these definitions would be used for the needs assessment to promote consistency in responses. However, it was determined that these definitions are somewhat complex and, as a result, the definitions from the *Consultation Document* were modified to make them more useable for the purposes of this needs assessment.

The definitions outlined below were used verbatim during the interview consultations and national survey of pharmacists and employers.

Pharmacist Specialists: maintain an active clinical practice that is limited to a particular type of patient (e.g., geriatrics, ambulatory care), part of the body (e.g., cardiology), medical condition (e.g., infectious disease, oncology), or location of practice (e.g., critical care). Specialties can either be broad (e.g., pharmacotherapy specialists, who have an advanced practice that covers complex issues arising from a broad range of medical conditions for a wide variety of patients and diseases) or focused (e.g., oncology or cardiology specialists, who have a practice that covers medically complex patients for a limited range of medical conditions in a specific patient group). Pharmacy specialization requires an advanced body of knowledge distinct of the general practitioner and a specialized or enhanced depth of competency including knowledge, skills, attitudes and accountabilities based on the physical, social, and health sciences, sufficient to manage the most complex of cases and provide clinical leadership in the field.

Pharmacist specialists have completed additional clinical training in their specialty area, beyond typical entry to practice credentials, which may include the completion of formal educational programs and/or extensive clinical experience. Generally, specialty competencies attained through formal learning/education programs and practice in the field are recognized through a certification process.

Pharmacist Specialty Certification: represents a formal designation earned by a person to assure a standard of knowledge and qualification in a subject area and/or to perform a job or task. The assessment process is administered by a non-governmental organization that grants a time-limited credential in a designated area of specialty to a pharmacy practitioner whose education, experience, knowledge and skills meet or exceed the predetermined standards and qualifications established by the organization. In addition, it establishes criteria and standards to maintain continued competence and retain the credential.

Advanced Pharmacist Practice: is a practice that is so significantly different from that achieved at initial licensure that it warrants recognition by professional peers and the public of the expertise of the practitioner and the education, training and experience from which that capability was derived. [Advanced Pharmacy Practice Framework Steering Committee, 2012]

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- The Specialization Project Advisory Group, whose members provided insight and guidance for the study, helped reach the target audiences for the consultations, and refined the final report.
- The Blueprint for Pharmacy Steering Committee for providing funding, direction and oversight to the needs assessment and final report.

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BLUEPRINT FOR PHARMACY STEERING COMMITTEE:

- Alberta Pharmacists' Association
- Association of Faculties of Pharmacy of Canada
- Association québécoise des pharmaciens propriétaires
- Canadian Association of Pharmacy Students and Interns
- Canadian Association of Pharmacy Technicians
- Canadian Council on Continuing Education in Pharmacy
- Canadian Pharmacists Association (Secretariat for the National Coordinating Office)
- Canadian Pharmacy Technician Educators Association
- Canadian Society of Hospital Pharmacists
- Neighbourhood Pharmacy Association of Canada
- Ontario Pharmacists Association
- Pharmacy Examining Board of Canada
- Pharmacists' Association of Newfoundland and Labrador

1. INTRODUCTION

In the fall of 2014, a pharmacy sector, multi-stakeholder group was appointed to oversee an assessment of the need, demand and feasibility for the establishment of a process for the formal recognition and certification of pharmacist specialists in Canada. What follows is the report from this assessment.

1.1 BACKGROUND TO THE ASSESSMENT

There is a long history of examining pharmacist specialization in Canada. Below is an overview of the key milestones and timelines associated with this examination.

Table 1: Overview of key milestones and timelines in the examination of pharmacist specialization in Canada

Timeline	Key Milestone
Mid-1980s	Formation of a multi-stakeholder Specialties Task Force.
1987	The Specialties Task Force recommends the establishment of the Canadian Board of Specialities in Pharmacy (CBPS).
1989	The CBPS proposes merging with the Pharmacy Examining Board of Canada (PEBC) due to the lack of start-up and sustained financial funding, as well as uncertain future revenue from examination fees.
1990s	PEBC forms a Committee on Specialty Certification, which is added to the PEBC By-laws in 1993. PEBC continues to monitor the potential for initiating specialization certification into the 2000s.
2003	The issue of recognition of advanced practice or specialty areas in pharmacy is investigated by the National Association of Pharmacy Regulatory Authorities (NAPRA).
1998 & 2002–2004	Ordre des pharmaciens du Québec (OPQ) undertakes initiatives to recognize specialties in pharmacy. The initiatives reach the stage of regulation development.
2010	Continuing Professional Development/Continuing Education (CPD/CE) Policy Summit on Advancing Innovation and Excellence in Pharmacy Practice, hosted by the Canadian Pharmacists Association (CPhA) and the Canadian Council on Continuing Education in Pharmacy (CCCEP). Eight action ideas are identified for implementing a framework and system for the recognition of specialties and special areas of pharmacy practice in Canada (Box 1).
2012	Renewed efforts are made in Québec to introduce specialty recognition of pharmacotherapy. A Task Group on Specialization in Pharmacy in Canada is established to follow up on the eight action ideas from the CPD/CE Policy Summit (Box 2).
2014	The Task Group on Specialization in Pharmacy in Canada circulates and requests feedback on a consultation document for the definition and description of key concepts regarding areas of advanced practice, specialist certification and certificate programs in Canada. The Blueprint for Pharmacy establishes a multi-stakeholder Project Advisory Group and funds a project to assess the need and demand for a formal process to recognize and certify pharmacist specialization in Canada.
2015	The Blueprint for Pharmacy releases the report – Needs Assessment of Specialization in Pharmacy in Canada.

Box 1 CPD/CE Policy Summit

In 2010, the CPD/CE Policy Summit on Advancing Innovation and Excellence in Pharmacy Practice (hosted by CCCEP and CPhA) had the overall goal of developing a policy framework and support systems that would enable continuing professional development to support practice change and continuing competence. Results of the Policy Summit included eight action items for implementing a framework and system for the recognition of specialization and specialty areas of pharmacist practice in Canada. These recommendations led to the appointment of the Task Group on Specialization in Pharmacy; the development of a consultation document on definitions of pharmacist specialty and specialization; and the commission of this report as a critical next step to assess the need and demand for the recognition and certification of pharmacist specialization in Canada.

Box 2 Task Group on Specialization in Pharmacy in Canada

In January 2012, a Task Group on Specialization in Pharmacy in Canada was established to follow up on the action ideas from the 2010 CPD/CE Policy Summit on Advancing Innovation and Excellence in Pharmacy Practice. The Task Group is composed of representatives from CPhA, CCCEP, PEBC, Association of Faculties of Pharmacy of Canada (AFPC), Canadian Society of Hospital Pharmacists (CSHP) and National Association of Pharmacy Regulatory Authorities (NAPRA, observer). The Task Group has been working on the draft definition and description of key concepts regarding specialization and certification. It circulated a discussion paper on certification and specialization to Canadian pharmacy organizations in 2014.

1.2 PURPOSE

The purpose of this report is to outline the results of an assessment to determine the need and demand for the recognition of pharmacist specialization in Canada and make recommendations regarding the need, demand and feasibility of a specialty certification process for pharmacists in Canada. The assessment was originally intended to include an examination of advanced pharmacist practice. However, in the interest of providing a clear distinction between advanced practice and specialization and a more targeted focus to the scope of the assessment, it was determined that the assessment would focus strictly on pharmacist specialization.

Project Sponsors

This assessment was sponsored by the Blueprint for Pharmacy, PEBC and CCCEP. Project management support was provided by CPhA and the Blueprint for Pharmacy National Coordinating Office. In-kind support was provided by a number of other organizations including those represented on the Specialization Project Advisory Group.

2. METHODOLOGY

This assessment was guided by the Specialization Project Advisory Group (see Acknowledgements). The Advisory Group provided guidance and direction in the design of the needs assessment, feedback on the data collection instruments, advice on stakeholder engagement outreach strategies, support in reaching key stakeholder groups, and help in reviewing and refining the findings and recommendations from the needs assessment.

2.1 SUMMARY OF METHODOLOGY

Literature Review

The Intergate team reviewed over 30 articles, papers and evaluations related to pharmacist specialization (see References). This included high level jurisdictional reviews of the Board of Pharmacy Specialties (BPS) in the United States (US); work underway to introduce a certification process for hospital pharmacists across the European Union (EU); trends in Australia and New Zealand; and a review of the progress made in implementing a pharmacotherapy specialization and certification process in Québec. The review also included a web review and limited interviews with representatives from BPS, Australia and Québec.

Interview Consultations

Intergate conducted tailored interview consultations with 24 leaders in the pharmacy profession. The purpose of the interview consultations was to tap into the expertise, experiences and insights of thought leaders in the profession with regard to the need, demand and feasibility for a formal process for the recognition and certification of pharmacist specialties in Canada. The following stakeholder groups were included in the interview consultations:

- Pharmacy associations (3)
- Regulators (8)
- Educators (4)
- Practising pharmacists (5)
- Large community pharmacy employers (4)

Note: A copy of the general interview guide can be found in Appendix A. This guide was tailored to each stakeholder group.

At the project initialization meeting it was determined that, given the limited capacity and time available for performing intensive interviews, the employer group would include large community pharmacy employers (rather than hospital or independent community pharmacy employers). This group was chosen on account of their distinct commercial focus, their prominence in the pharmacy workforce, and the uncertainty of their support for specialization. A much broader and more inclusive consultation was planned for the national survey.

National Survey of Pharmacists and Pharmacist Employers

The needs assessment included a national survey of pharmacists and pharmacist employers. The purpose of the national survey was to reach a large sample of the targeted stakeholder groups to understand how extensive pharmacist specialization is occurring across Canada – both certified and non-certified. The purpose was also to assess the support, need and perceived costs, barriers and feasibility for a formal process for the recognition and certification of pharmacist specialization in Canada.

Intergage worked with the Specialization Project Advisory Group to develop the web-based survey and to determine the sampling strategy and outreach to the targeted population. Note: A profile of the survey respondents can be found in Appendix B and copy of the survey instruments can be found in Appendix C.

The project team designed the survey instruments based on information collected through the literature review and interview consultations. The draft survey instruments were reviewed by the Specialization Project Advisory Group, translated into French, and pre-tested with a sample of approximately 20 individuals who represent a mix of pharmacists and employers and English and French respondents. The survey was launched by email invitation on January 15, 2015.

The survey was distributed using a multi-pronged strategy that included the use of national databases as well as promotion and distribution by provincial and national associations and by pharmacist employers. This approach was selected to ensure the broadest reach for the survey, including distribution through the CSHP database to target hospital pharmacists and employers. The survey was distributed as follows:

- Distribution by Intergage to approximately 15,100 pharmacists from the CPhA database
- Distribution by Intergage to approximately 2,700 pharmacists from the CSHP database
- Requests to national and provincial organizations as enablers to distribute the survey link to their members. Organizations that helped with the distribution include:
 - Association of Faculties of Pharmacy of Canada (AFPC)
 - l'Association des pharmaciens des établissements de santé du Québec (A.P.E.S.)
 - Provincial associations, including the Prince Edward Island Pharmacists Association (PEIPhA), Ontario Pharmacists Association (OPA), British Columbia Pharmacy Association (BCPhA) and Association québécoise des pharmaciens propriétaires (AQPP)
 - Pharmacist employers, including Costco Pharmacies, Remedy's Rx, Pharmasave, Shoppers Drug Mart, Brunet Pharmacies and Metro Ontario Pharmacies
 - Canadian Association of Pharmacy in Oncology (CAPHO)

Given the method of distribution, other organizations and individual pharmacists or employers may have also distributed the link to the survey.

The survey was launched on January 15, 2015 and was open for 4 weeks before closing on February 12, 2015. Two reminders were sent to those who had not opened the survey or to those who had started the survey but had not completed it.

In total, 2523 respondents completed the survey; approximately 92% (n=2344) respondents were practising pharmacists and 8% (n=179) were employers. A profile of respondents' areas of primary practice is summarized below:

- 2344 pharmacists
 - 45% community pharmacy
 - 41% hospital pharmacy
 - 14% other (including post-secondary/educational institutions, group professional practices, other community-based pharmacist practices, etc.).
- 179 employers
 - 30% community pharmacy (chain pharmacy)
 - 46% community pharmacy (independent)
 - 16% hospital pharmacy
 - 8% other (including consulting, corporate/industry, association, etc.).

See Appendix B for a detailed breakdown of area of practice and organization.

Note: Although 2523 respondents started the survey, not every question was completed by every respondent. The number of respondents who answered each individual question (n = total number of responses) is noted in the report wherever individual survey responses are cited.

Roundtable Consultations

Intergeage leveraged existing professional meetings to gather multiple stakeholders' perspectives and feedback on the need, demand and feasibility for pharmacist specialization in Canada through roundtable consultations. These consultations were also an opportunity to present and seek input on the preliminary findings from this assessment. The 2 roundtables were organized as follows:

- February 3, 2015 in Toronto, Ontario. This roundtable was organized around the CSHP Professional Practice Conference and included thought leaders from the hospital sector and other leaders located in the Toronto area.
- February 24, 2015 in Toronto, Ontario. This roundtable was organized around a Blueprint for Pharmacy Steering Committee meeting and included representatives from the Blueprint for Pharmacy Steering Committee and the Specialization Project Advisory Group.

This report provides a synthesis of findings from the various study methodologies and lines of evidence outlined above.

2.2 METHODOLOGICAL LIMITATIONS

Mode of Distribution: National Survey

By enabling organizations and individuals to distribute the survey link, the project team was unable to develop definitive estimates of the population and therefore we were unable to identify an exact response rate and probability assessments. However, for an estimated population of 35,000 (the approximate size of the pharmacist population in Canada), a confidence level of 99% and a margin of error of 4+/-, the survey required a sample size of 1010 and this size was exceeded. This is a more stringent measure than is used in determining probability, which is generally a margin of error 5+/- with a 95% confidence interval.

National Survey: Reaching Employers

The national survey reached approximately 179 employer respondents. On the survey landing page, respondents were presented with the following message:

This survey will ask a different set of questions based on whether you self-identify as a pharmacist employer or a pharmacist. This survey is intended for practising pharmacists and employers of pharmacists only. *If you are both a pharmacist and a pharmacist employer, we ask that you please self-identify as an employer.*

There is some concern that, even in light of this message, employers who are also pharmacists may have selected to respond to the survey as pharmacists and not as employers.

Equal Reach of Hospital and Community Pharmacists and Employers

The methodologies employed for this assessment did not reach hospital and community pharmacists and employers equally in each case. As mentioned above, the national survey received more responses from pharmacists, in general, than pharmacist employers. Hospital employers were consulted through a roundtable discussion in Toronto, but a separate roundtable consultation was not held for community pharmacist employers. Also, the interview consultations reached both community pharmacists and employers but it did not target hospital pharmacists and employers.

3. OVERVIEW OF FINDINGS

3.1 PHARMACIST SPECIALIZATION IN CANADA: DRIVERS, NEEDS AND TRENDS

A literature review revealed that the role of pharmacists is continuing to evolve away from pharmaceutical product supply and dispensing to the provision of direct patient care (WHO, 2006). Many experts in the profession see pharmacist specialization as the next step in the evolution of pharmaceutical care and, in fact, the future of the profession (Low and Strand, 2010; Gates, 2013). There are a number of drivers that support this movement towards pharmacist specialization and the formal recognition of pharmacist specialization. The drivers and needs identified in this report are summarized below.

Public Health and Safety

Gourley (1997) originally stated that the most direct and significant benefit of pharmacist specialization lies in the ability of the pharmacist to provide better care and health outcomes to patients or selected groups of patients. In the document *A Regulatory Framework for Recognition and Certification of Pharmacist Specialists in Canada* the National Advisory Committee on Pharmacy Practice (NACPP), an advisory committee to the National Association of Pharmacy Regulatory Authorities (NAPRA), identified new methods of delivering and monitoring drug therapy as being driven by the need to improve the safety of the medication use system and patient outcomes. The NACPP further noted the trend that patients are increasingly turning to pharmacists for health information and care (NACPP, 2003). Better and more comprehensive care provided through pharmacist specialty practice is seen as benefiting the patient, other health care professionals, payers of health care pharmacy services and the health system more generally. Recent studies have found that pharmacists who operate in specialized areas can help manage health risks, increase public safety and have a significant impact on patient quality of life and health (Kruger, 2013; Low and Strand, 2010).

Economics

The 2002 Commission on the Future of Health Care in Canada (Romanow Commission) and other reviews from that time suggested a growing awareness and appreciation for the contribution of pharmacists to the overall quality of care in Canada as well as cost-effective solutions to rising health care costs. The Romanow Report cited changes in the way health care services are delivered, especially with the growing emphasis on collaborative teams and networks of health providers, as evidence of the need to evolve the traditional scope of pharmacist practice. The Report pointed to the increased use of prescription drugs and reliance on home care as a reflection of the growing emphasis on medication management programs that directly impact the role of pharmacists and lead to more specialized roles within health care teams (Romanow, 2002).

A Situation Analysis conducted by the federal government of Canada found that key drivers influencing the increased demand for more specialized skills of pharmacists were the number of drug therapies, an aging but more knowledgeable and demanding population, and deficiencies in other areas of the health care system (Peartree Solutions Inc., 2004).

A number of authors and reports have noted that limited health care resources, the shortage of primary care physicians and the drive for greater efficiencies in the health care system have led to an increasing recognition of the variety of roles pharmacists can play within integrated patient care teams. Having pharmacists work to their full scope of practice and specialize in areas of greatest demand are viewed as more efficient uses of health care resources and delivery (Carmichael et al, 2004; Buckley, 2005; Gates, 2013).

Evolution of the Profession and the Importance of Professional Oversight

Many sources from the literature and additional evidence from the jurisdictional review indicate that the pharmacy profession has been evolving toward greater integration within collaborative health care teams and, as a result, pharmacists are becoming increasingly and directly involved in patient care. This may be driven by the increasing complexity of drug regimens and treatments. Pharmacists are becoming more involved in evaluating a patient's therapeutic options (Kruger, 2013; Buckley, 2005). The prevalence of specialization in other health professions with prominent roles in direct patient care (e.g., physicians and nursing) suggests that the evolution of pharmacy practice towards greater patient care focus may also lead to the development of pharmacist specialization (Buckley, 2005).

Information from the literature suggests that the international trend is increasingly moving towards the development of pharmacist specialization in selected therapeutic areas. This trend is most notable in the US, where BPS has become the largest pharmacist specialist credentialing organization in the world. While certification of pharmacist specialization through BPS was initially slow to take off, pharmacist specialty certifications through BPS have increased dramatically in the last 10 years and are predicted to increase more rapidly in the near future. Note: More details on the BPS experience are outlined in the case study on page 28.

Findings from the literature review also suggest that specialty practice is regarded as positive for the promotion of collaborative health care teams, which often require pharmacists to justify their expanded roles within the teams through practice agreements that formally define the scope and breadth of their specialty knowledge and skills (Buckley, 2005). It is, therefore, incumbent on the profession to ensure that pharmacists who provide specialized services within these collaborative practice teams meet the required level of knowledge, skills, attitudes, and values to safely and competently perform those services (CCP, 2009; Gates, 2013). These assurances are critical for the public, payers and employers (Parent, 2012; Sheehan, 2010; Buckley, 2005), and can be achieved through formal specialty certification programs such as BPS.

In 2009, Blair et al. noted a growing need for greater standardization and unification of the profession under a more coherent certification framework. He argued that a new framework for specialty certification in pharmacy that supports a wider variety of specialties and subspecialties must be able to provide both financial sustainability and administrative efficiency. Currently, in Canada, there is a lack of standardization of pharmacist credentials in specialty areas and no formal recognition process. The Council on Credentialing in Pharmacy, a coalition of 10 national pharmacy organizations from the US that are committed to providing leadership, guidance, public information and coordination for credentialing programs in or relevant to pharmacy, argues that a clear understanding of the knowledge, skills, attitudes, and values of contemporary pharmacists (including specialists) and pharmacy technicians, and the meaning of the various credentials held by them is essential. A more formalized process for recognizing and supporting pharmacist specialization will lead to more effective health care workforce management, appropriate privileging, more equitable compensation mechanisms and improved quality of patient care (CCP, 2009; CCP, 2010).

3.2 TRENDS IN OTHER JURISDICTIONS

United States

The US appears to have the most experience internationally regarding the formal recognition and certification of a variety of pharmacist specialty areas through BPS. BPS programs and processes for specialty certification are widely used throughout the US and internationally, including Canada. While BPS has struggled with the level of demand for their certification programs, demand has picked up dramatically in recent years and is expected to grow to 25% of all licensed pharmacists in the US by 2020.

Case Study: Board of Pharmacy Specialties (BPS)

A key question this assessment attempted to answer is whether there is a critical mass of pharmacists in Canada who are supportive of and who would pursue specialty certification in order to make a “made in Canada” or “adapted for Canada” (i.e., “Canadianized”) certification process sustainable.

BPS was established in the US in 1973 and by 2002 it had certified roughly 3600 US pharmacists. Demand had grown to 2.4% (5758/240,000) of US pharmacists in 2006 and to approximately 8% (21,906/290,780) in 2014. BPS set a goal of having 30,000 pharmacists hold BPS certification by 2017 and demand is further predicted to grow to 25% of the US workforce by 2020 (81,950 of an estimated 327,800) (W. Ellis, BPS Executive Director, personal communication, December 9, 2014; BLS, 2015a; BLS, 2015b; BPS, 2013). In an interview consultation with BPS Executive Director William Ellis, the following were proposed as key factors influencing the recent increase in demand for pharmacist specialty recognition in the US:

- The pharmacist profession seeing intrinsic value in certification.
- Recognition by peers (other pharmacists and increasingly by physicians and nurses).
- Colleges and universities requiring pharmacy faculty members to obtain BPS certification, and students and residents seeing these board-certified faculty members as role models.
- The gradual increase in the number of employers who require BPS certification, such as Kaiser Permanente.

BPS began certifying pharmacist specialties in 1978 in the following areas:

- Nuclear pharmacy, since 1978
- Nutrition support pharmacy, since 1988
- Pharmacotherapy, which has two subspecialties: cardiology and infectious disease, since 1988;
- Psychiatric pharmacy, since 1992
- Oncology pharmacy, since 1996
- Ambulatory care pharmacy, approved in 2009 with the first examination administered in 2011
- Critical care pharmacy, since 2015
- Pediatric pharmacy, since 2015

Below are numbers of active pharmacists with BPS specialties as of December 2014:

Pharmacotherapy	15,897
Ambulatory Care Pharmacy	1956
Oncology Pharmacy	1773
Psychiatric Pharmacy	845
Nutrition Support Pharmacy	556
Nuclear Pharmacy	553
Infectious Diseases Added Qualifications	200
Cardiology Added Qualifications	126
TOTAL	21,906

Note: Approximately 1000 of these pharmacists are from outside the US. In 2015, it was estimated that approximately 262 Canadian pharmacists held BPS certifications in 2014. A further 394 Canadian pharmacists are believed to have held a certificate in Geriatric Pharmacy Practice (GPP) through the Commission for Certification in Geriatric Pharmacy (CCGP) in 2014 (CBSP, 2015). Based on NAPRA statistics published on January 1, 2015, this represents about 1.7% (656/38,737) of licensed Canadian pharmacists (or less as some pharmacists may have both certifications).

The number of US pharmacists with BPS certification represents approximately 8% of the US pharmacist workforce (BLS, 2015a); however, in an interview with BPS Executive Director William Ellis (December 9, 2014), he indicated that this number may be closer to 3–4% given the likelihood of double counting (some pharmacists hold multiple BPS certifications).

In January 2013, BPS released its *White Paper: Five-Year Vision for Pharmacy Specialties*, which has been the foundation for stakeholder discussion on the future of BPS and the possibility of introducing sub-specialties. New specialties have been approved in Pediatric Pharmacy and Critical Care Pharmacy, and several others have been suggested and are currently being reviewed by BPS.

Lessons Learned

BPS encountered some of the following barriers to broader uptake among pharmacists in acquiring specialty certification:

- Slow uptake in obtaining employer buy-in (employers who would expect or require their employees to obtain formal certification as specialists)
- Lack of perceived value in certification among pharmacists

BPS has set a goal of providing 30,000 pharmacists with BPS certification by 2017 and increasing this to 25% of all US pharmacists by 2020. A review of BPS's history indicates that it has taken over 40 years for approximately 20,000 pharmacists to obtain specialty certifications. Interview consultations reveal that since its inception, BPS has been heavily subsidized by pharmacy organizations and at one time the American Pharmacists Association considered ending its involvement with BPS (W. Ellis, BPS Executive Director, personal communication, December 9, 2014).

European Union

In many EU member states, there is initial work underway to develop a formal recognition process for specialization in hospital pharmacy practice. A lack of EU-level mutual recognition of hospital pharmacist specialization has created substantial disparity in the qualifications of pharmacists working in hospitals across Europe. This is seen as undermining the efforts of certain European countries to advance the level of pharmaceutical care in the hospital setting and it has created inequalities in patient access to the best possible care.

Australia

In Australia, there is no formal process for the recognition of pharmacist specialization and, currently, the term “specialization” can only be used for medical and dental professions. Pharmacists in Australia who wish to become specialized primarily seek formal certification through BPS and/or CCGP, both based in the US.

The Society of Hospital Pharmacists of Australia (SHPA) has begun work on the Advanced Pharmacy Practice Project which is expected to result in the following:

- Recognition for advanced pharmacist practice with the development of the Advanced Pharmacy Practice Framework and a professional development framework for each practice area to support an individual pharmacist's professional development journey from transition to consolidation to advanced level of practice.
- An Advanced Competency Assessment Tool (shpaACAT) that lists the additional performance criteria and evidence guides for each practice area.
- Additional chapters for the SHPA Standards of Practice for Clinical Pharmacy Services and, if appropriate, other SHPA Standards of Practice.

The Framework outlines three performance levels above that of a generalist pharmacist that reflect the progression from a ‘general’ level to Transition, Consolidation and to the Advanced level. The latter is a proposed level for pharmacist credentialing.

The project, currently in Phase 1, is focused on seven pharmacist practice areas:

- Cancer services
- Cardiology
- Critical care
- Emergency medicine
- Infectious diseases
- Pediatrics
- Palliative care

Frameworks for other practice areas, including non-clinical areas, will be developed after this initial group of frameworks.

The SHPA has also developed a Credentialing and Privileging Resource Center. This Centre was created to support the profession and pharmacists who are experiencing significant changes to their roles on the health care team. Credentialing and privileging are viewed as essential to helping pharmacists meet the demands of professional changes.

Québec

In Québec, the Ordre des pharmaciens du Québec (OPQ) undertook initiatives to recognize specialties in pharmacy in 1998, and again in 2002–2004. On both occasions, the initiatives reached the stage of developing regulations; however, the regulations were never implemented. In 2012, the OPQ re-launched this initiative for the formal recognition of specialties. Two universities in Québec have developed Masters Degree programs in advanced pharmacotherapy, which are meant to be one step towards specialization. However, pharmacist specialization is not yet formally recognized in Québec.

3.3 INTEREST AND DEMAND FOR PHARMACIST SPECIALIZATION

Note: All “n=X” contained within the findings below represent the total number of responses for each respective question. E.g., 55% of employers strongly agree/agree that their organization currently employs pharmacist specialists (n=139). This signifies that 55% of 139 employers (76/139) strongly agree/agree.

Interest and Perceived Demand among Pharmacist Employers

Among community pharmacy employers interviewed for this assessment (n=4), the perception is that the demand for pharmacist specialization is low and will likely come from a small minority within the profession who are leaders and innovators. However, among the approximately 140 pharmacist employers who responded to the national survey:

- 55% strongly agree/agree that their organization currently employs pharmacist specialists (n=139)
 - 51% independent community pharmacy employers (27/53)
 - 57% community chain employers (20/35)
 - 67% of hospital employers (12/18)

- 53% strongly agree/agree that most of their pharmacist specialists are not formally certified (n=139)
 - 59% independent community employers (31/53)
 - 43% community chain employers (15/35)
 - 78% of hospital employers (14/18)

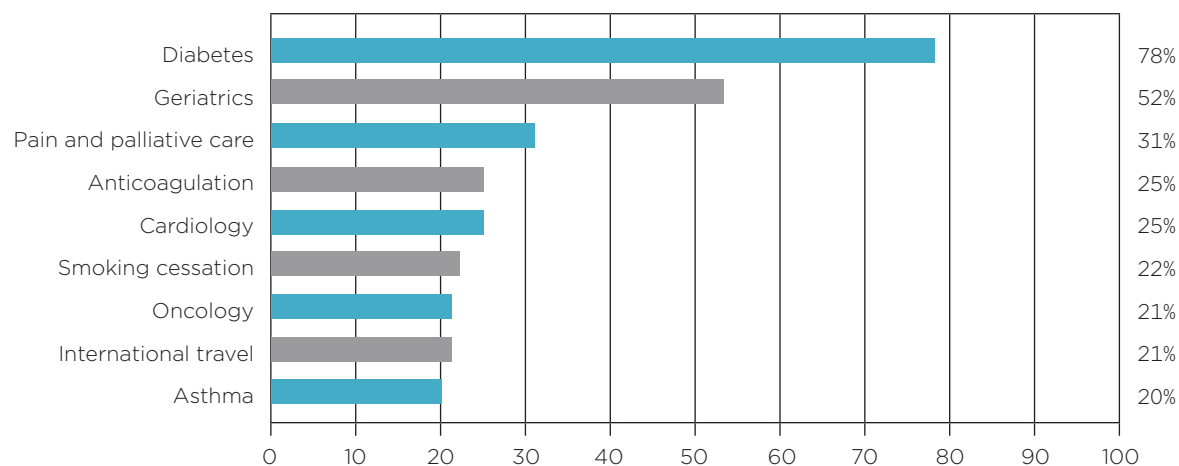
Of the employer survey respondents, hospital employers are more likely to employ pharmacist specialists who are not formally certified. However, as noted below, hospital employers are less likely to agree that pharmacists will require formal specialty certification in the future. Community chain pharmacy employers are more likely to strongly agree/agree that pharmacists will require specialist certification in the future. This may be linked to the high percentage of community employers who indicated they employ pharmacists with disease state certifications, such as CDE.

- 82% of employers strongly agree/agree that they will encourage pharmacists currently practising in specialized areas to become formally certified (if a formal certification process is created) (n=142)
 - 79% independent community employers (42/53)
 - 91% community chain employers (32/35)
 - 72% hospital pharmacy employers (13/18)
- 67% of employers strongly agree/agree that they will require formal certification for pharmacists who wish to practice in specialized areas (if/when a formal certification system becomes available) (n=141)
 - 68% independent community employers (36/53)
 - 83% community chain employers (29/35)
 - 61% of hospital employers (11/18)
- 85% of employers (compared to 89% of pharmacist respondents) strongly agree/agree that a process to support the certification and formal recognition of key pharmacist specializations should be available in Canada (n=123)
 - 83% independent community employers (44/53)
 - 94% community chain employers (33/35)
 - 78% of hospital employers (14/18)

Seventy-two percent of employers indicated they expect their organization to see an increase in demand for pharmacist specialization (n=139). Among those who anticipate an increase in demand, the specialty areas predicted to be in greatest demand over the next 2–3 years are summarized in Table 2 (n=128). Note: Respondents were able to select more than one answer.

It is interesting to note that some of the specialty areas highlighted by the employers do not meet the definition of “pharmacist specialists” that was provided to them at the beginning of the survey (see Glossary of Key Terms). This suggests that many participants disagreed with, disregarded or forgot the definitions provided to them.

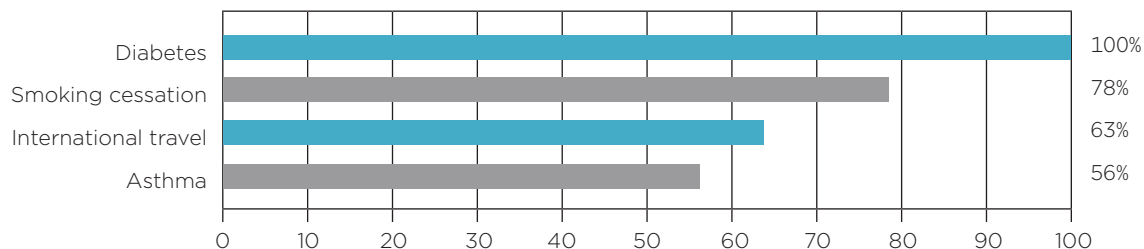
Table 2: Areas of anticipated demand for pharmacist specialization in the next 2-3 years, as selected by employers (n=128)



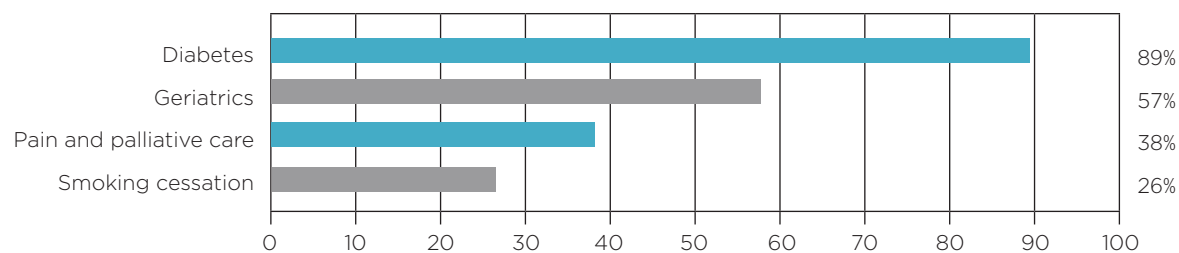
When this is broken down by community versus hospital pharmacy employers and by chain versus independent pharmacy employers, there is a clear difference in areas of anticipated demand (Table 3).

Table 3: Areas of anticipated demand for pharmacist specialization over the next 2-3 years, as selected by specific employers (top 4)

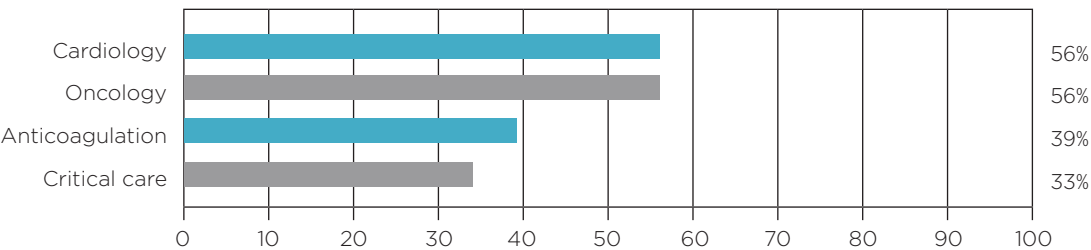
3a. Community chain employers (n=27)



3b. Community independent employers (n=53)



3c. Hospital pharmacist employers (n=18)



The top 3 areas of demand for pharmacist specialization identified by hospital employers are cardiology and oncology, followed by anticoagulation. Within community pharmacy, differences were seen in employer responses; community chain pharmacy employers identified diabetes, smoking cessation and international travel as the top 3 areas of anticipated demand for specialization in the next 2-3 years, whereas the community independent employers identified diabetes, geriatrics and pain and palliative care.

Interview Note: Given the business aspect of community pharmacy, the community employers interviewed for this assessment emphasized that pharmacist specialization should be driven by clients/patients who are demanding the services.

Perceived Demand among Practising Pharmacists

When pharmacist survey respondents were asked to identify specialty areas that would be in greatest demand in the next 2-3 years, the following areas were most identified. Note: Respondents were able to select more than one area.

- Diabetes
- Geriatric
- Cardiology

Table 4 identifies the responses received by all pharmacist survey respondents (broken out by hospital versus community settings and total overall responses) in relation to specialty areas that respondents believe will be greatest demand over the next 2-3 years. It also frames predicted demand in relation to existing formal certification processes.

Table 4: Areas of perceived demand for pharmacist specialties in the next 2-3 years, as selected by pharmacists, including existing certifications

Areas of perceived demand for pharmacist specialties in the next 2-3 years *	Hospital (n=639)	Community (n=699)	Total responses (n=1825, all pharmacist survey respondents, including from practice areas other than hospital or community pharmacy)	Available certifications		
				BPS (Board of Pharmacy Specialties)	CCGP (Commission for Certification in Geriatric Pharmacy)	Other disease-state certificate programs (viewed by some pharmacists as specialty certifications)
Diabetes	41%	82%	64%	—	—	CDE (Certified Diabetes Educator certificate program from the Canadian Diabetes Educator Certification Board)
Smoking cessation	3%	14%	10%	—	—	CTE (Certified Tobacco Educator certificate program from the Canadian Network for Respiratory Care)
Asthma	3%	21%	13%	—	—	CAE (Certified Asthma Educator certificate program from the Canadian Network for Respiratory Care)
Pain and palliative care	29%	29%	29%	—	—	—
Geriatrics	56%	60%	59%	—	CGP (Certification in Geriatric Pharmacy)	—
International travel	3%	22%	12%	—	—	CTH (Certificate in Travel Health from the International Society of Travel Medicine)
Anticoagulation	25%	28%	25%	—	—	—
Psychiatric	21%	20%	19%	Psychiatric Pharmacy	—	—
Cardiology	33%	33%	32%	Added qualification in Cardiology Pharmacotherapy	—	—
Women's Health	1%	9%	5%	Nutrition Support Pharmacy Pharmacotherapy	—	NCMP (Certified Menopause Practitioner Program from the North America Menopause Society (NAMS))
Pharmacotherapy	19%	7%	13%	Pharmacotherapy	—	—
Nutrition support	1%	7%	5%	Nutrition Support Pharmacy	—	—

* Respondents were asked to select four areas.

Interest among Practising Pharmacists

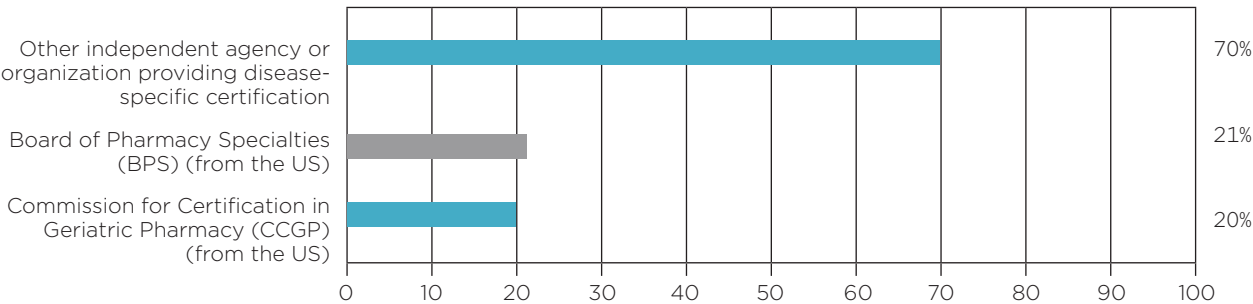
Almost half of the pharmacists surveyed (48%, n=2084) for this assessment consider themselves pharmacist specialists. Of the 2084 pharmacist survey respondents:

- 15% indicated being formally certified as a pharmacist specialist
- 33% indicated being a pharmacist specialist without formal certification
- 52% indicated they do not consider themselves to be a pharmacist specialist

Among the pharmacists who consider themselves formally certified pharmacist specialists, 50% indicated that they practise in community pharmacy, compared to 31% who work in a hospital or other health care facility (n=220). Among the respondents who indicated they practice in a specialized area without formal certification, 68% practise in a hospital or other health care facility, and 19% practice in community pharmacy (n=525). The remainder are disbursed between academia, group professional practice/clinic or corporate and consulting pharmacy. The high number of community pharmacists identifying as specialists, whether certified or not, could be an indication that many in community pharmacy consider a disease-state educator certification (e.g., CDE) as a formal specialty certification.

Among pharmacist respondents who indicated being formally certified specialists, 21% indicated they received certification through BPS and 20% indicated being formally certified through CCGP (n=276). A further 70% indicated they were certified through another organization (Table 5). Note: Respondents were able to choose more than one answer.

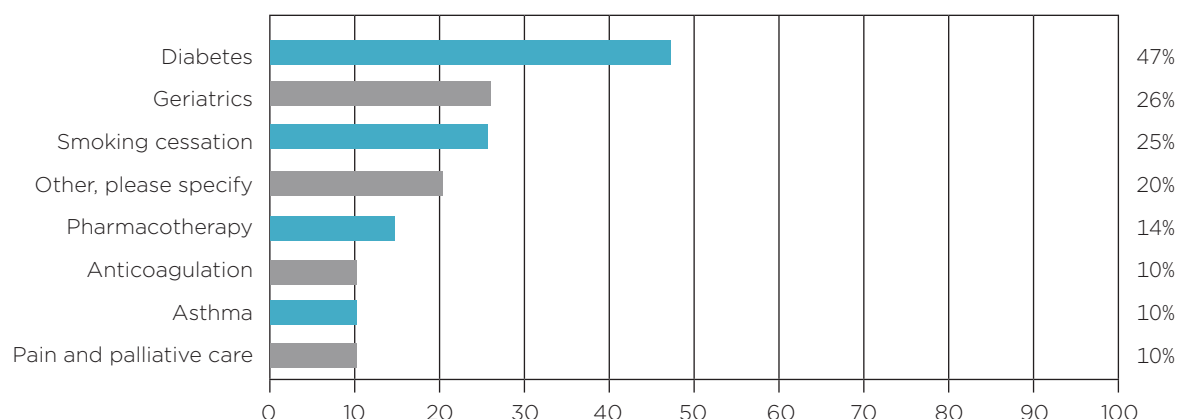
Table 5: Certification bodies chosen for pharmacist specialty certification (n= 276)



Of the 70% of pharmacist survey respondents who indicated they received specialty certification through “other certifying body”, approximately 58% of these respondents indicated they received certification from the Canadian Diabetes Educator Certification Board (i.e., CDE). It is clear that while disease state specializations were not part of the definition for pharmacist specialty practice provided in the survey introduction, a large percentage of pharmacist respondents who self-identify as pharmacist specialists consider disease states to be areas of specialization.

Among the pharmacist respondents who indicated they are formally certified specialists, the following are practice areas in which they indicated they specialize (Table 6, n=288). Note: Respondents were able to select multiple areas of specialization.

Table 6: Areas of specialization selected by certified specialist pharmacists (top 8) (n=288)

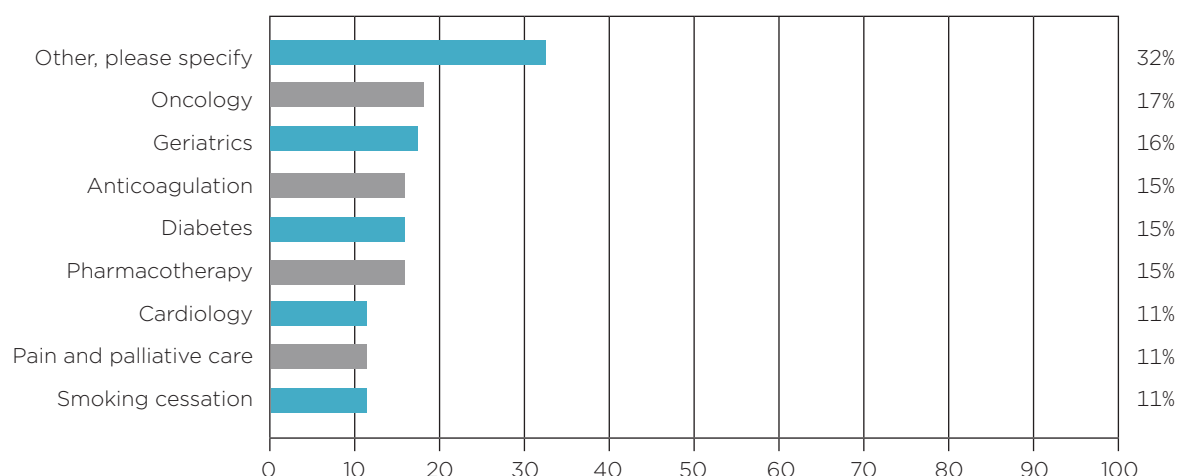


Of the 20% of pharmacist respondents who selected “other”, the primary areas identified include injections, HIV and infectious disease.

When this data is broken down by hospital versus community pharmacy, the top 3 areas selected by certified hospital pharmacist specialists (n=70) are pharmacotherapy (31%), geriatrics (23%) and oncology (17%). The top 3 areas selected by certified community pharmacist specialists (n=111) are diabetes (71%), smoking cessation (33%) and geriatrics (19%). Note: A total of 220 certified specialist pharmacists indicated their practice setting within the survey.

Respondents identifying as pharmacist specialists but without formal certification were asked to indicate in which areas they provide specialist services (Table 7, n=679). Note: Respondents were able to select multiple areas of specialization.

Table 7: Areas of specialization selected by non-certified pharmacist specialists (top 9) (n=679)



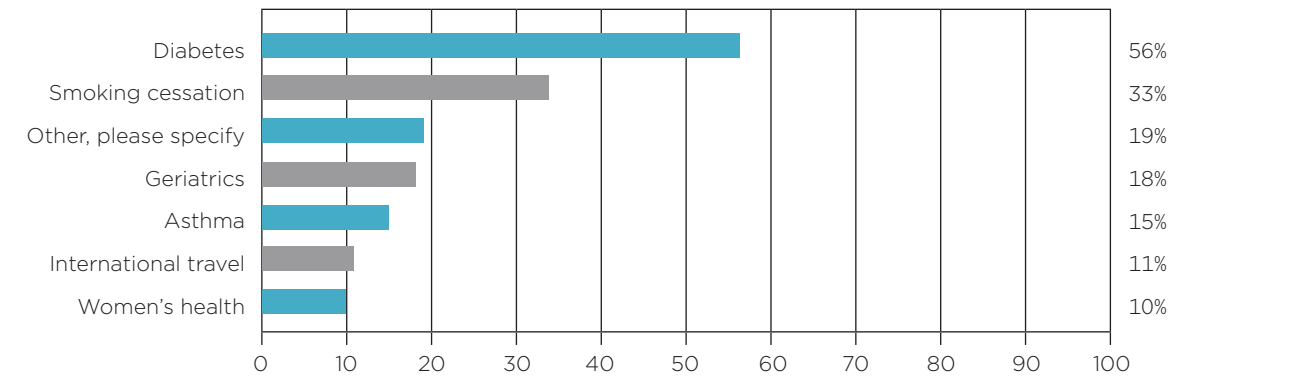
Of the 32% of pharmacist respondents who selected “other”, the primary areas identified include infectious disease and nephrology.

When this data is broken down by hospital versus community pharmacy, the top 3 areas selected by non-certified hospital pharmacist specialists (n=356) are oncology (24%), anticoagulation (17%) and geriatrics (15%). The top 3 areas selected by non-certified community pharmacist specialists (n=100) are diabetes (39%), smoking cessation (33%) and geriatrics (18%). Note: A total of 525 non-certified specialist pharmacists indicated their practice setting within the survey.

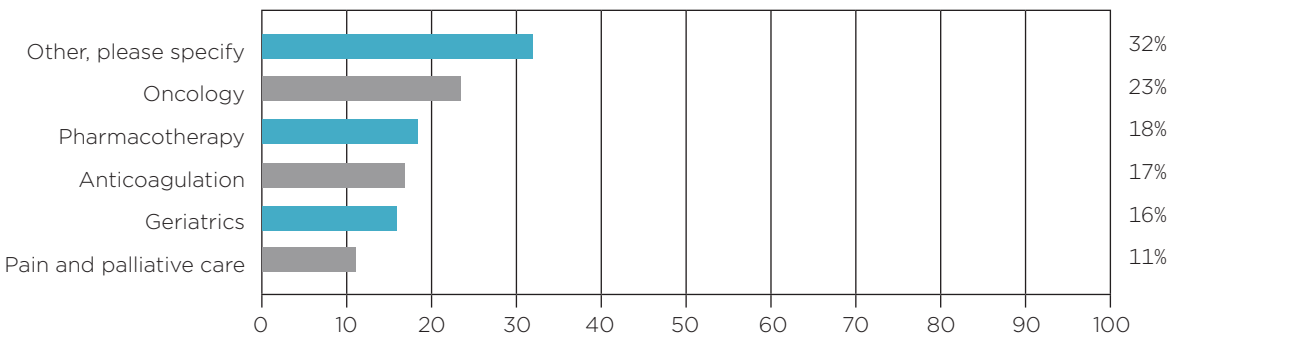
Among the pharmacist respondents who self-identify as specialists, whether certified or not, it is noted that selected areas of specialization differ between pharmacists practising in hospital versus community pharmacy settings (Table 8). Among the latter, specialization areas focus on disease state management. In contrast, hospital pharmacists selected areas specific to medical conditions or medically complex patients.

Table 8: Areas of specialization by practice setting selected by formally certified and non-certified pharmacist specialists

8a. Community pharmacists (n=211)



8b. Hospital pharmacists (n=426)



Among respondents who selected “other”, the majority of community pharmacists indicated specializing in compounding and injections while the majority of hospital pharmacists indicated specializing in infectious disease and nephrology.

The pharmacist survey respondents who have not pursued formal specialist certification indicated they have not done so because of the following reasons (n=605). Note: Respondents were able to choose more than one answer.

- Pharmacy specialization is not formally recognized in Canada (56%)
- Formal certification is not required (51%)
- A formal certification process is not available in Canada (52%)

Of the pharmacist survey respondents who self-identify as non-formally certified specialists, 71% strongly agree/agree they would pursue certification if a Canadian process were introduced. Only 44% strongly agree/agree they would likely pursue formal certification in the future through an international body in the absence of a Canadian process (n=596). For this question, there was no significant difference in responses between community and hospital pharmacists.

3.4 SUPPORT FOR FORMAL CERTIFICATION OF PHARMACIST SPECIALIZATION IN CANADA

Survey respondents were asked the extent to which they agree that a process to support the certification and formal recognition of key pharmacist specialty areas should be available in Canada. In total, 89% (n=1769) of practising pharmacists and 85% (n=123) of employer respondents strongly agree/agree that formal certification and recognition should be available in Canada. No significant difference was found in the level of support from pharmacist respondents working in hospital versus community pharmacy settings. Respondents aged 25–34 were twice as likely to support formal certification and recognition of pharmacist specialists in Canada compared to other age groups.

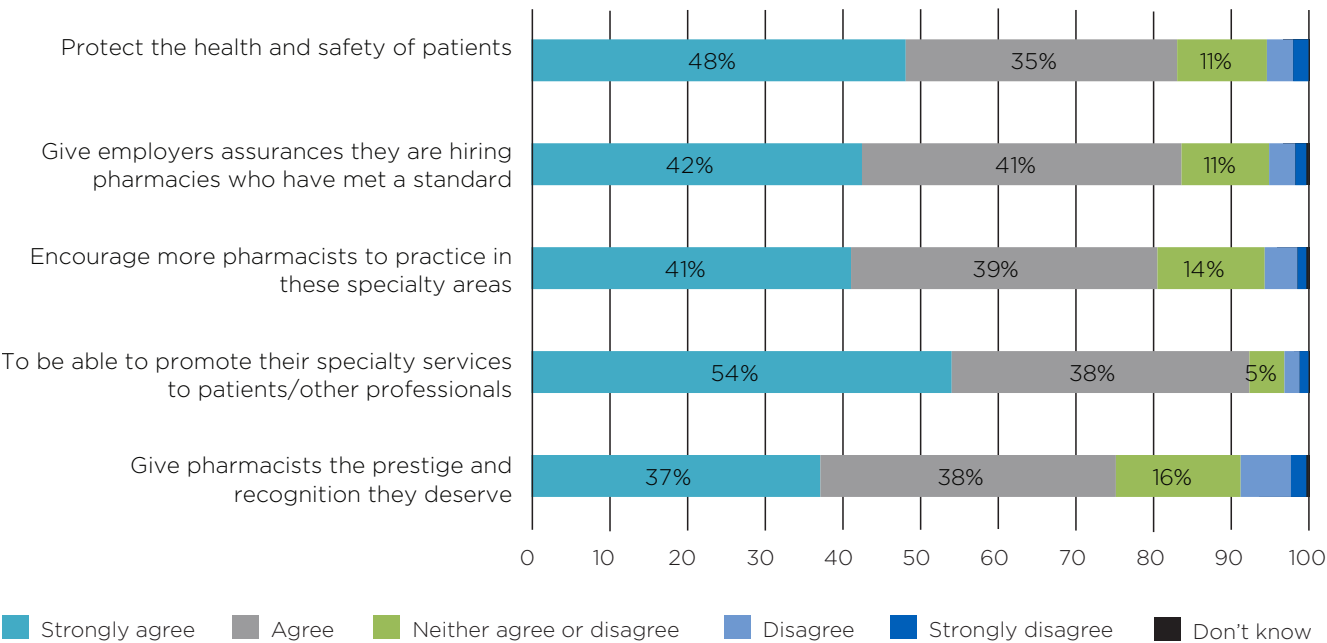
Approximately 61% (n=1468) of pharmacist respondents strongly agree/agree that pharmacist specialist certification should be mandatory for pharmacists who wish to practice in an area where formal certification is available, compared to 65% (n=102) of employer respondents. Among pharmacists who are practising in specialty areas but are not formally certified (but who would consider obtaining certification in the future), only 52% (n=500) strongly agree/agree that formal certification should be mandatory. Eighty-five percent of both community (n=699) and hospital pharmacists (n=639) strongly support the creation of a formal certification process for pharmacist specialization in Canada. However, hospital pharmacists were less likely to strongly agree/agree (54%; n=545) that a formal certification process should become mandatory compared to community pharmacists (69%, n=593).

“Pharmacists should be free to maintain the continuing education and specialization that they desire, but it should not become something that is mandated or required to practice in specialized areas.”

(Employer survey respondent)

Pharmacist respondents were asked whether they agree with a number of reasons why pharmacist specialization should be recognized through a formal certification process (Table 9). Most respondents strongly agree/agree that specialization would allow pharmacists to better promote their specialty services (92%), protect the health and safety of patients (83%), and provide assurances to employers that specialized pharmacists meet standards (83%, n=1770).

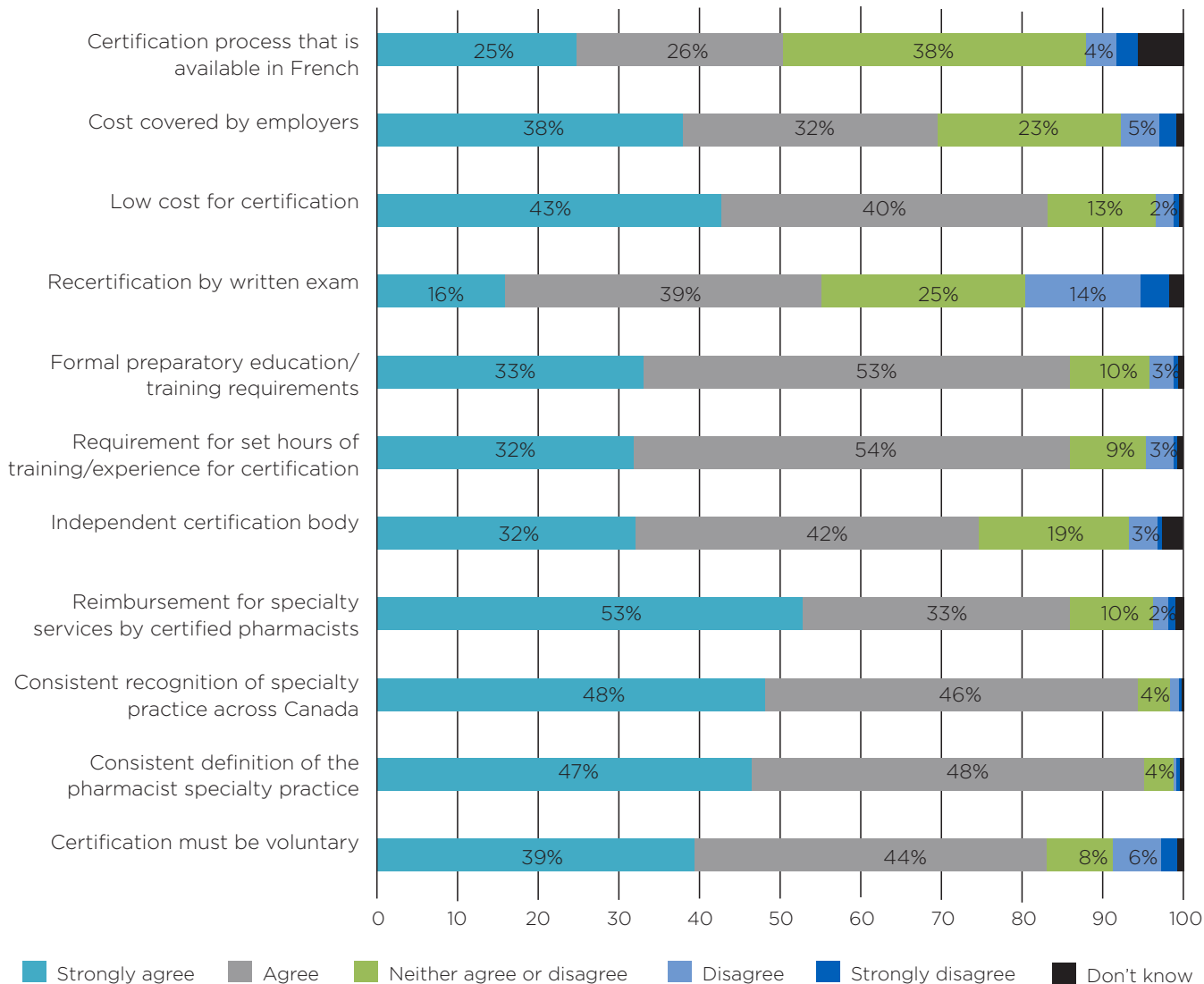
Table 9: Level of agreement by pharmacist respondents that pharmacist specialists should be recognized through a formal certification process and for the following reasons (n=1770)



When pharmacists were asked the extent to which they strongly agree/agree that a variety of factors would be important for an optimal certification process (should it be decided that a formal certification process for pharmacist specialization is needed in Canada), pharmacists indicated the highest level agreement with the following (Table 10, n=1664):

- Consistent definition of pharmacist specialty practice (95%)
- Consistent recognition of specialty practice in Canada (94%)
- Requirement for set hours of training/experience for certification (86%)
- Formal preparatory education/training requirements (86%)
- Reimbursement for specialty services provided by certified pharmacists (86%)
- Low costs of certification (83%)

Table 10: Important factors for an optimal certification process in Canada, as selected by pharmacists (n=1664)



Support among Regulators

Pharmacy regulators interviewed for this assessment (n=8) are generally supportive of a formal certification process for pharmacist specialties in Canada. However, they caution it should be driven by patient needs and the needs of the health care system. Those consulted see a value in developing a Canadian process for the formal recognition of pharmacist specialization, but feel that it must be structured and communicated properly so that patients can make informed decisions as to the level and quality of care they need and the type of pharmacists from whom they should seek care. Regulators also expressed uncertainty regarding the feasibility of introducing a formal process of recognition for pharmacist specialization given the lack of understanding regarding the associated costs and benefits that might result from its introduction.

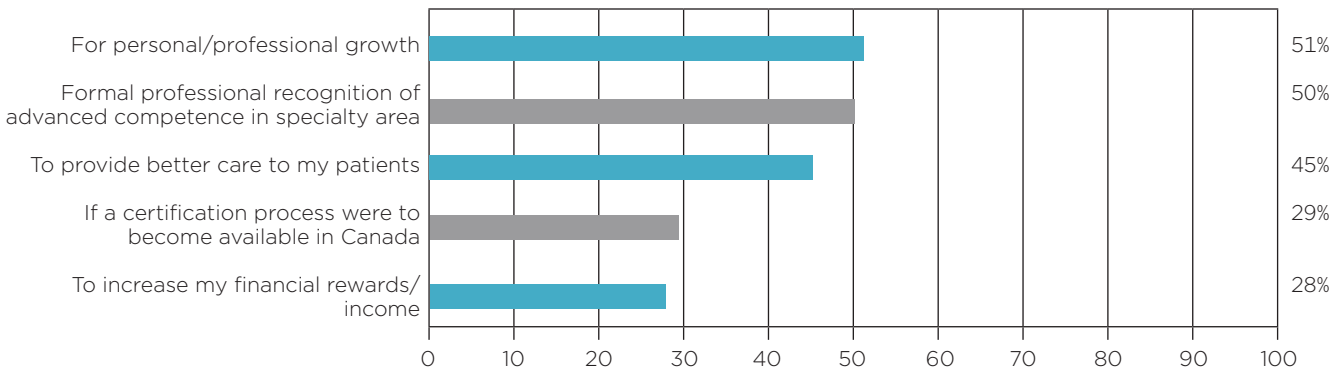
Support among Community Pharmacy Employers

Large community pharmacy employers who were interviewed for this assessment (n=4) anticipate limited demand for specialty certification from within their organizations. These pharmacist employers indicated that they provide support for their pharmacists to become certified in areas of injections/ vaccinations, diabetes education and geriatrics. Outside of these areas, specialization is not considered a priority. Interviews with community pharmacist employers in Alberta (n=2) indicated that with Alberta's Advanced Prescribing Authority for pharmacists, the priority for employers in this province is to support pharmacists in obtaining this designation.

3.5 FACTORS INFLUENCING DEMAND

Pharmacists who identify as non-formally certified specialists were asked to list the top factors that would influence their decision to become formally certified in the future. The top 3 factors indicated were 1) personal and professional growth, 2) formal professional recognition of advanced competence, and 3) to provide better care to patients (Table 11, n=595). Note: Respondents were able to select more than one response.

Table 11: Top factors that would influence non-formally certified specialist pharmacists to become formally certified in the future (n=595)

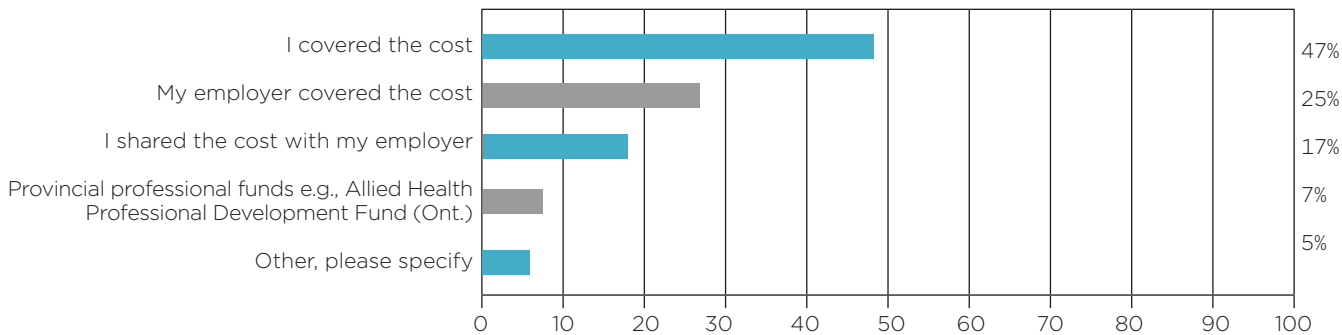


Costs of Certification

On average, formally certified pharmacist specialist respondents indicated they spent an average of \$1540 (median \$1000) on the certification process, with a range from \$0–\$30,000 spent on certification. Note: One respondent indicated they spent \$30,000 and 2 respondents indicated spending \$25,000. In total, 39% paid \$800 or less; 46% paid \$1000–\$2500; 10% paid \$3000–\$6000 and 5% paid \$10,000–\$30,000 (n=103).

When formally certified pharmacist specialist respondents were asked how they paid to become certified, almost 50% indicated they covered the costs themselves and 25% indicated the costs were covered by their employer (Table 12, n=247).

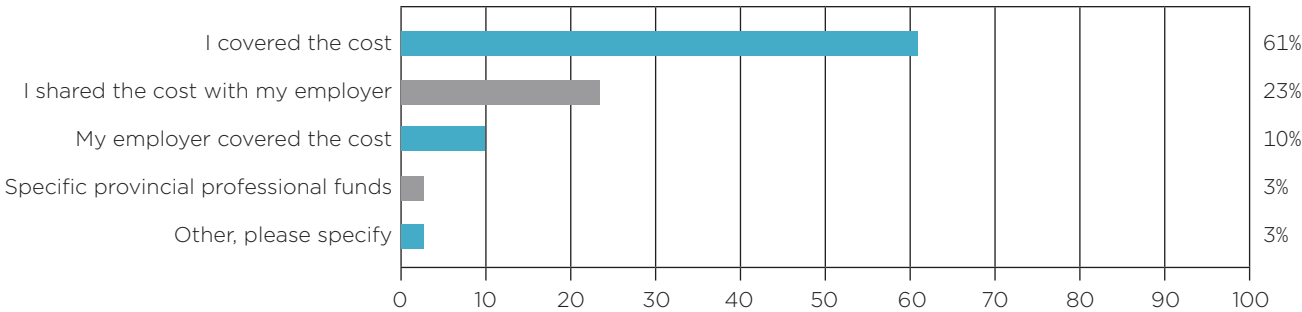
Table 12: How formally certified pharmacist specialists covered the costs of certification (n= 247)



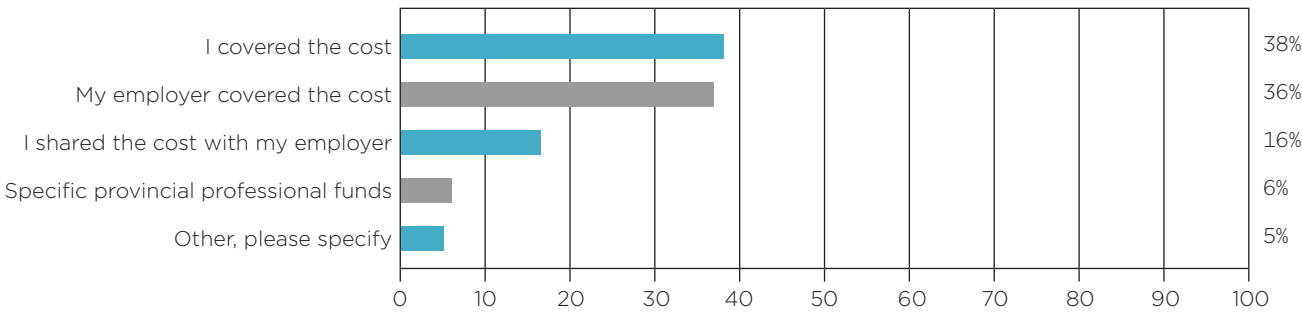
When comparing responses to this question between practice settings (where this information was provided), pharmacists practising in community pharmacy were more likely to have received financial support from their employers (36%, n=111) compared to those practicing in the hospital setting (10%, n=70) (Table 13).

Table 13: How pharmacists covered the costs of certification: hospital versus community

Hospital (n=70)

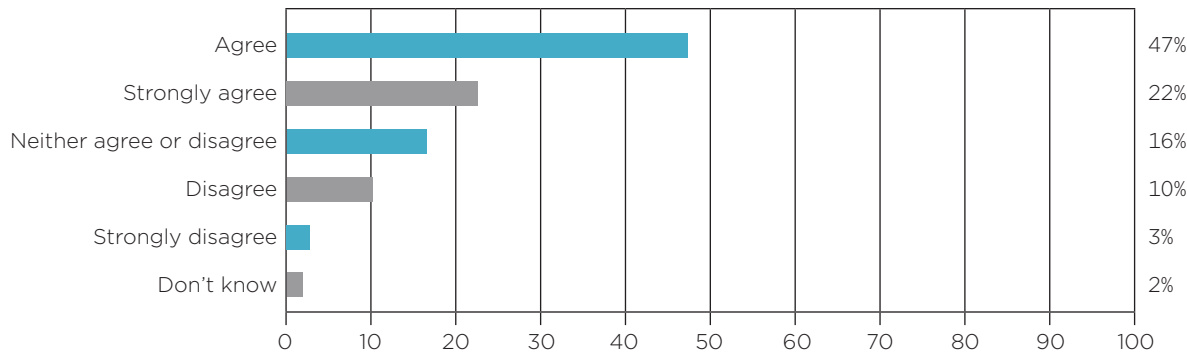


Community (n=111)



When non-formally certified pharmacist specialist respondents were asked if they would be willing to pursue certification without direct financial incentives from employers, 69% indicated they would be willing (Table 14, n=440). No significant differences were found in responses between hospital and community pharmacists.

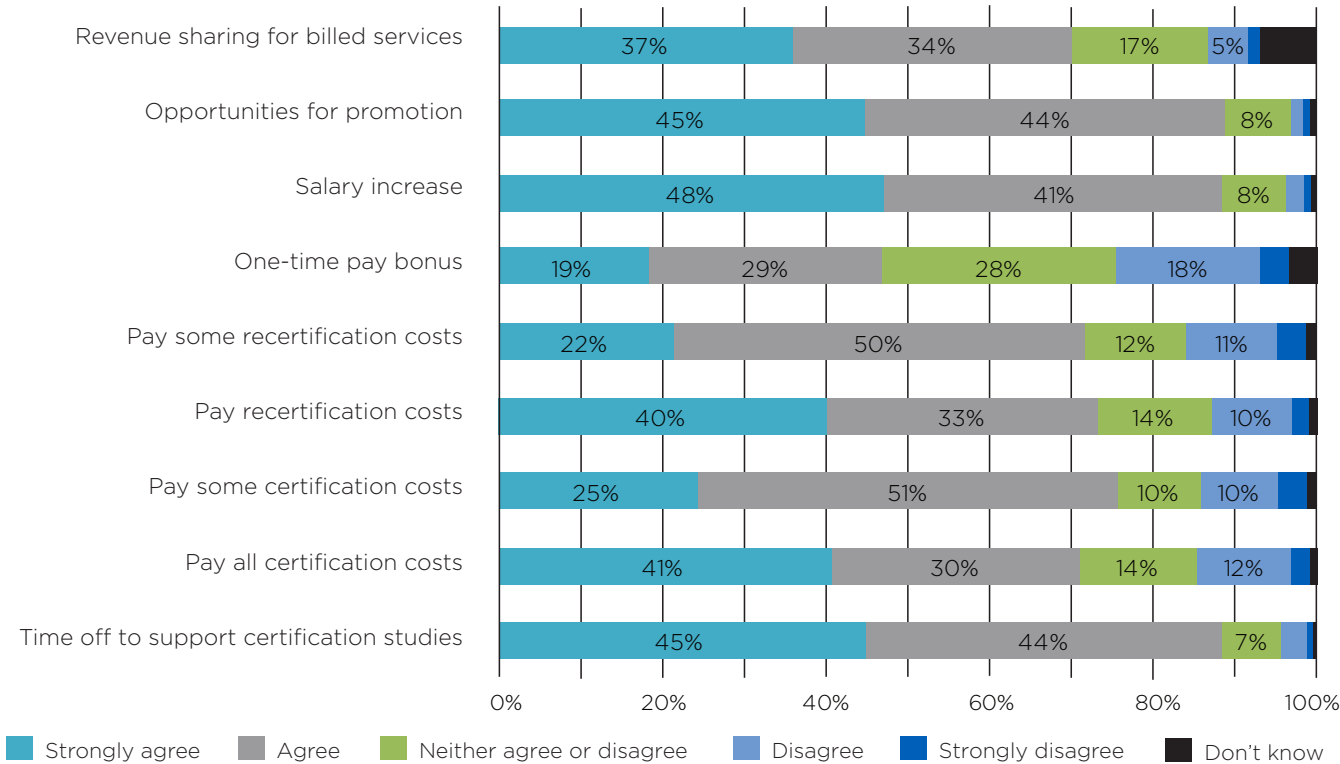
Table 14: Extent to which non-formally certified pharmacist specialists would pursue certification without direct financial incentives (*n*=440)



Incentives from Employers for Formal Certification

Pharmacist survey respondents indicated that employers could support specialty certification within the pharmacy profession through a number of different means, such as offering time off to support certification studies, increased opportunities for promotion and salary increases for those who obtain specialty certification (Table 15).

Table 15: Incentives employers could provide to support pharmacist specialist certification, as identified by pharmacist respondents (*n*=1570)



Community and hospital pharmacists identified the following as important incentives to obtaining formal specialist certification (Table 16). Note: Respondents were able to select more than one answer.

Table 16: Incentives to obtaining certification for pharmacist specialization, as identified by community and hospital pharmacist respondents

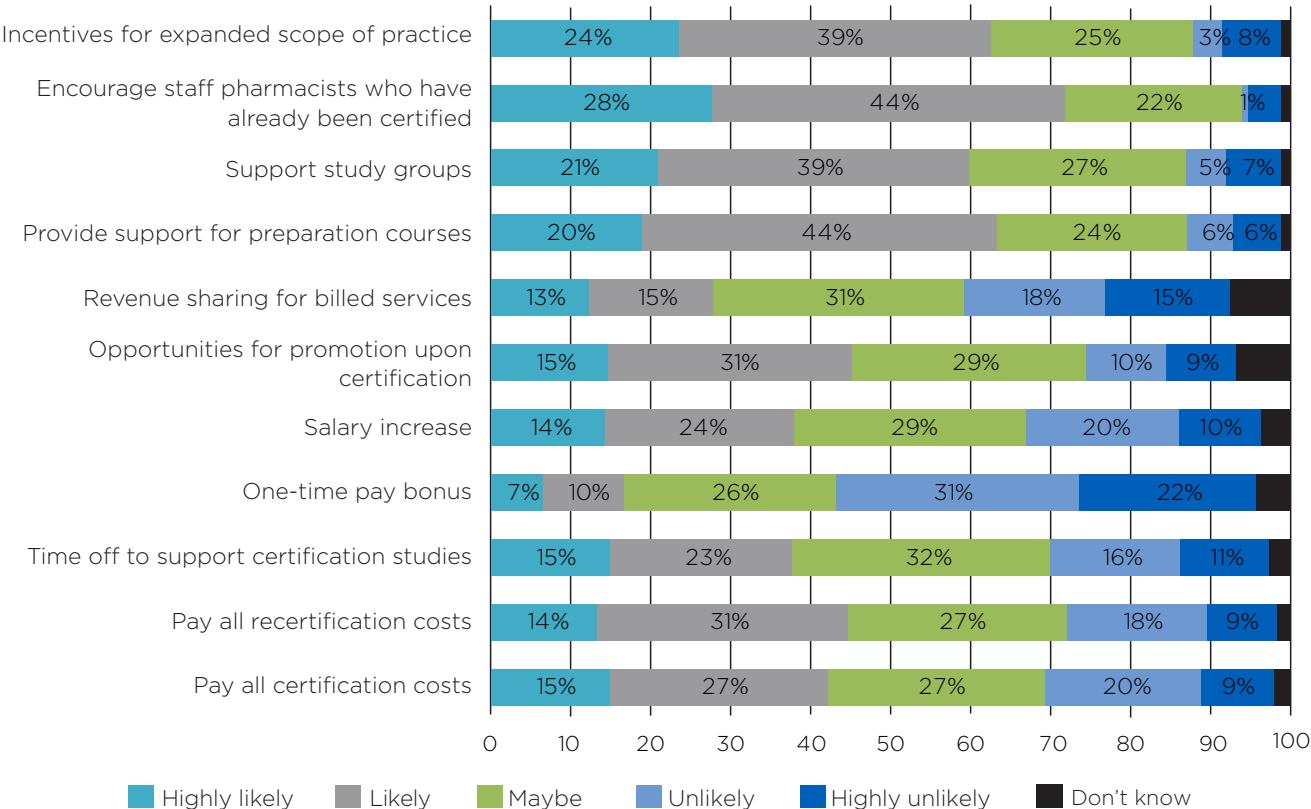
Community (n=699)		Hospital (n=639)	
Salary increases	89%	Time off for certification studies	92%
Time off to support certification process and opportunities for promotion	87%	Opportunities for promotion	91%
Revenue sharing for billed services	83%	Salary increases	90%

"Time to train and write certification exams. Money to attend training sessions and pay exam fees."

(Pharmacist survey respondent)

Interestingly, employers who responded to the survey indicated a low level of agreement that their organization might provide one-time pay bonuses or salary increases for pharmacists who obtain formal certification in an area of pharmacist specialization (Table 17).

Table 17: Possible incentives employers might provide for formal certification in areas of pharmacist specialization, as identified by employers (n= 118)



Experiences of Pharmacists who offer Specialty Services

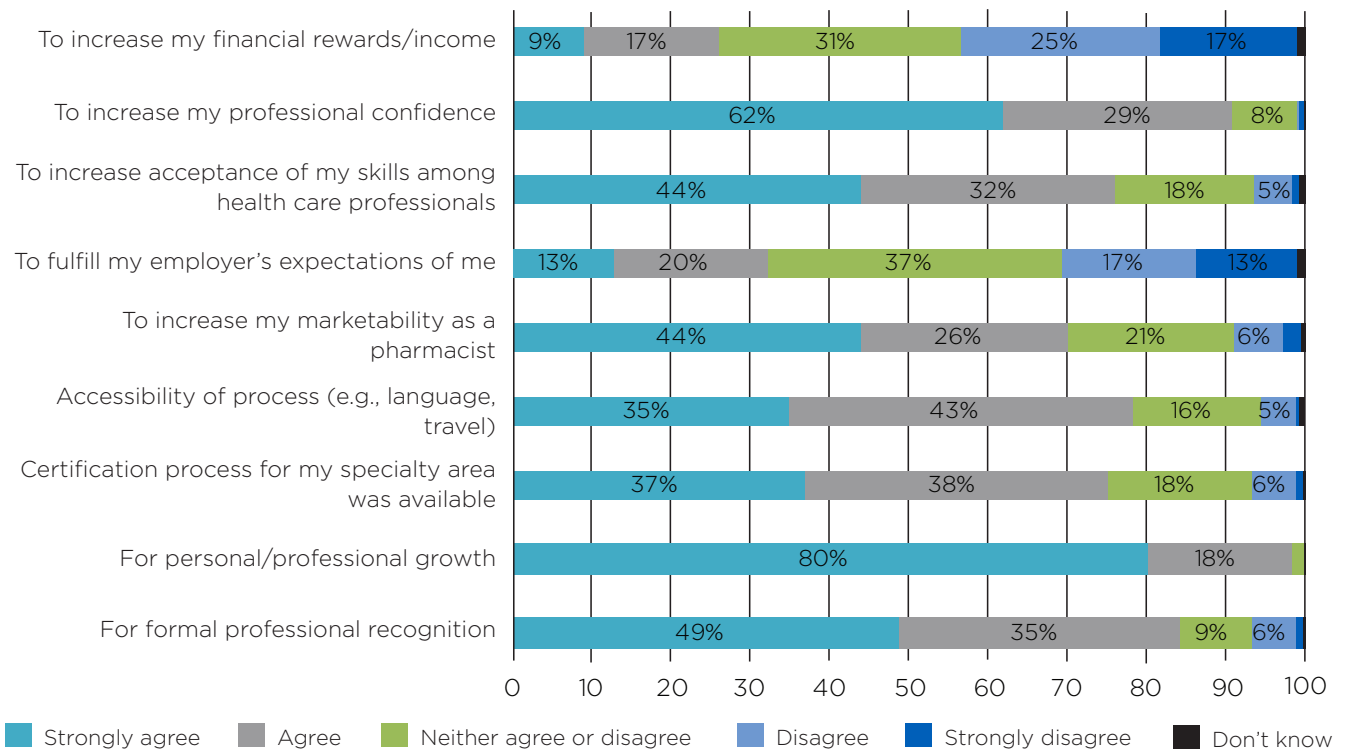
Based on information obtained through the literature, the most direct and significant benefit of pharmacist specialist certification lies in the ability of the pharmacist to provide better care to patients or selected groups of patients (Gourley et al., 1997).

In interview consultations for this assessment, pharmacist specialists (n=5) indicated that certification in areas of specialization allows pharmacists to better promote their specialist services and provides the public with information about to whom and where to go for specialized pharmacist services. For example, one pharmacist specialist noted that the majority of pharmacists do not have enough training in oncology to address patients with complex needs in this area, and it is generally not well known where to find oncology pharmacist specialists. This interviewee noted that a formal process for certifying pharmacist specialists in Canada would help to provide the public with better access to this specialty area of care. Another interviewee noted that becoming specialized expands career options and paths for pharmacists, but that specialization does not necessarily require certification.

Formally certified pharmacist specialist survey respondents were asked to identify reasons for which they became formally certified. The top 3 reasons indicated by respondents are as follows (Table 18, n=246). Note: Respondents were able to select more than one answer.

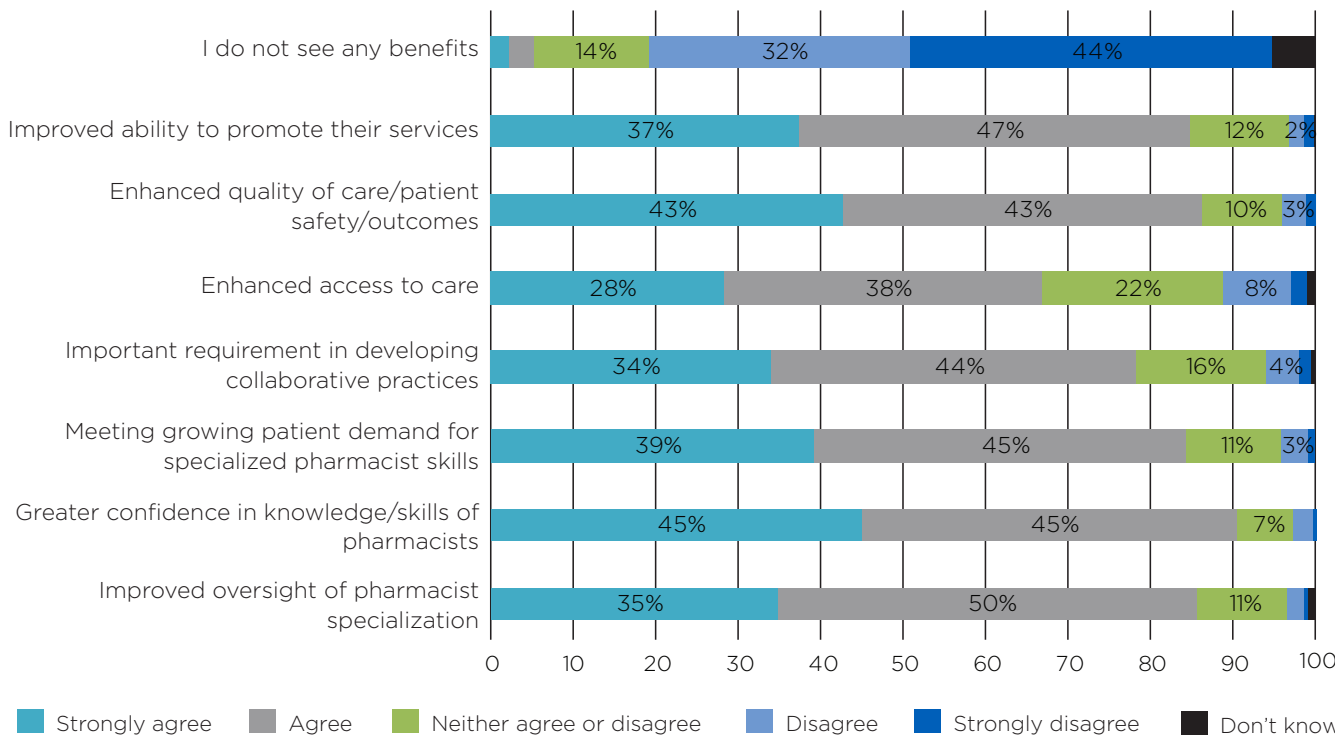
- For personal and professional growth (98%)
- To increase professional confidence (91%)
- Professional recognition of advanced competencies in specialized areas (84%)

Table 18: Reasons formally certified pharmacist specialists pursued certification (n= 246)



In terms of the benefits pharmacists expect to derive from formal certification in a specialty area, 86% of all pharmacist survey respondents strongly agree/agree that formal certification would enhance patient care, 90% strongly agree/agree that it would lead to greater confidence in the knowledge and skills of pharmacist specialists, and 84% strongly agree/agree that formal certification would improve the ability of pharmacists to promote their specialist services (Table 19, n=1658).

Table 19: Perceived benefits derived from the introduction of a formal certification process for pharmacist specialization, as indicated by pharmacists (n=1658)



"I think it would be great idea to have this certification in Canada. It would help the pharmacist who is interested in a specific area to practice with more confidence and to offer better service."

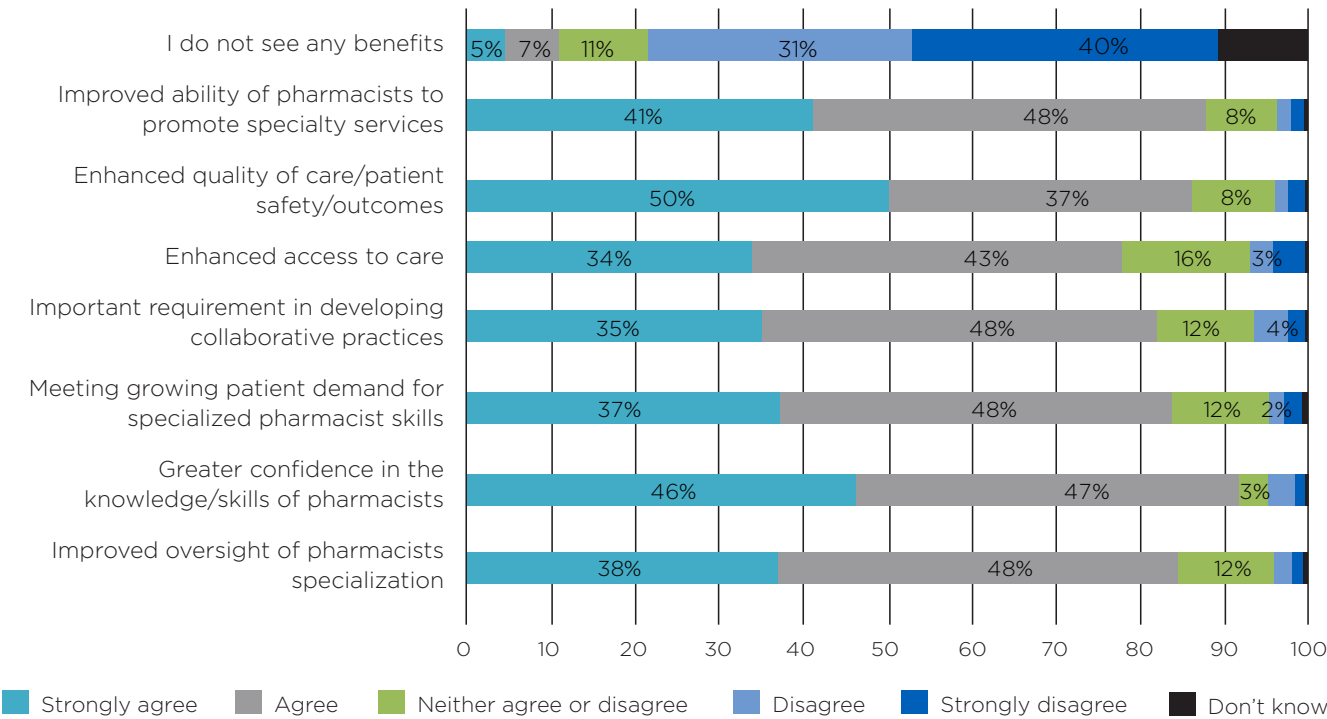
(Pharmacist survey respondent)

"Reimbursement for Rx services is limited. [Pharmacist specialization] creates another level of expectation for pharmacists.. at what cost and for what benefit? [And with] the possibility of additional certification? It is all a bit confusing."

(Pharmacist survey respondent)

Pharmacist employers who responded to this survey question indicated similar responses. Ninety-three percent strongly agree/agree that formal certification would provide pharmacists with greater confidence in their knowledge and skills. However 11% of employers indicated they strongly agree/agree that they do not see any benefits being derived from the introduction of a formal certification process for pharmacist specialization (Table 20, n=122), compared to 5% (n=1658) of pharmacists.

Table 20: Broader benefits derived from the introduction of a formal certification process for pharmacist specialization, as identified by employers (n=122)



3.6 BARRIERS TO PHARMACIST SPECIALTY CERTIFICATION

“Canada does not have a model for community-based specialist pharmacists. Community-based pharmacies are used primarily for on-demand services. [Specialization] is a good vision for the future and it is necessary as patients have more complex needs. More needs to be done to create a supporting model, define a generalist and specialist pharmacist, and determine who, how and where to access them. It exposes challenges with the reimbursement models. The framework does not support the generalist referral model as would be done with physicians. This needs to be fixed.”

(Pharmacist survey respondent)

In 2004, a Situational Analysis conducted by Peartree Solutions Inc. found that regulations imposed by governments, provincial licensing bodies and relevant associations, as well as corporate practices and inertia in fee systems are serious barriers to the changes needed to both relieve the current excess demand of health care services and to provide improved services at reduced costs for all Canadians (2004). Many of these barriers still exist.

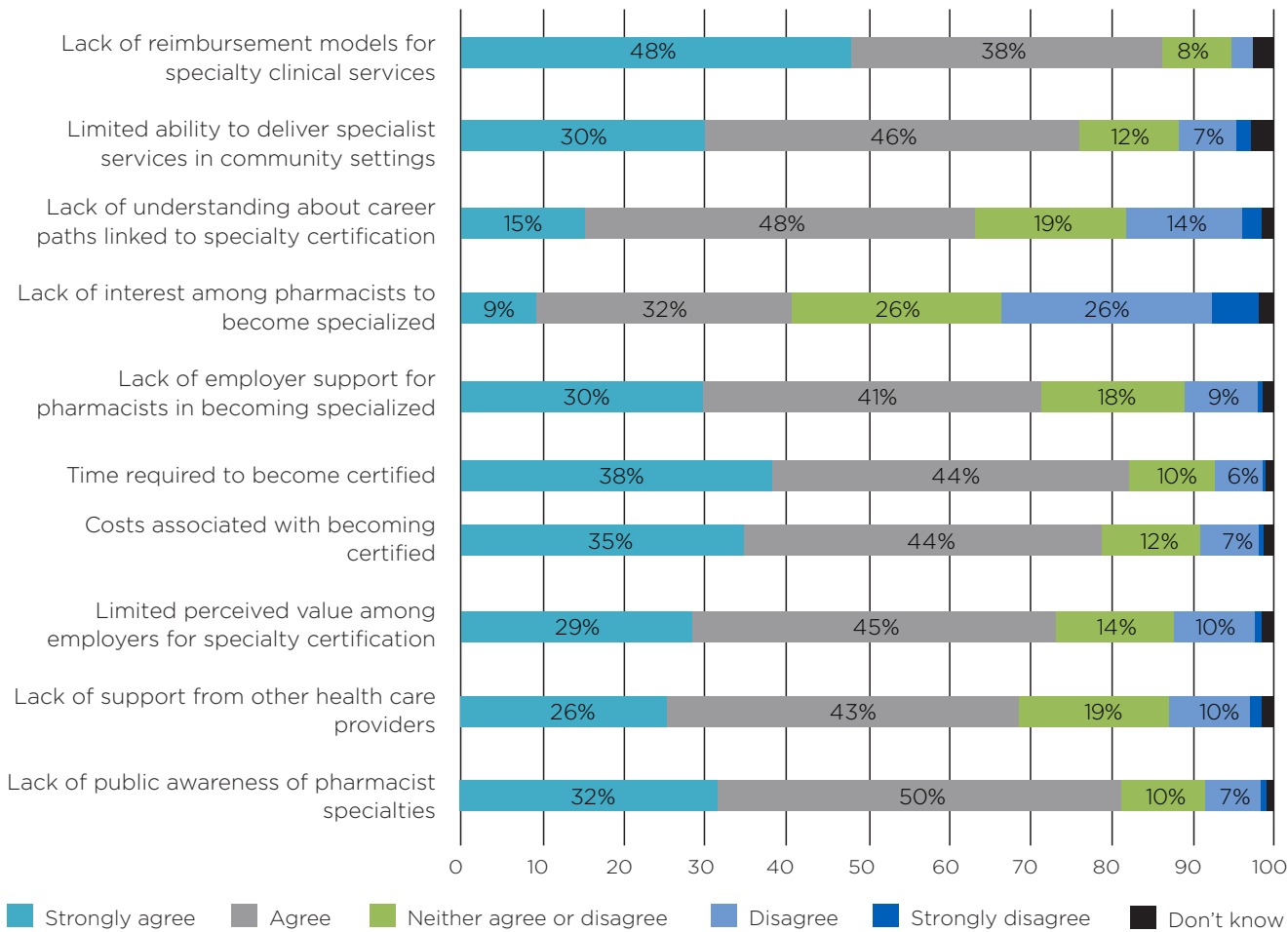
Buckley further noted that health systems as well as pharmacists have been slow to acknowledge the benefits of pharmacist specialty privileging (2005). Many may not even fully understand the process, which can differ substantially between institutions and jurisdictions. As noted in one editorial, privileging is voluntary in many places, not available everywhere and not well understood by most (Buckley, 2005).

Pharmacist respondents to the assessment survey were asked to rank a number of possible barriers to pharmacist specialty certification (Table 21, n=1595). The following were identified as the greatest barriers. Note: Respondents were able to select more than one answer.

- Lack of reimbursement models (86%)
- Time required to become certified (82%)
- Lack of public awareness (82%)

No significant differences were identified in the barriers selected by community and hospital pharmacists.

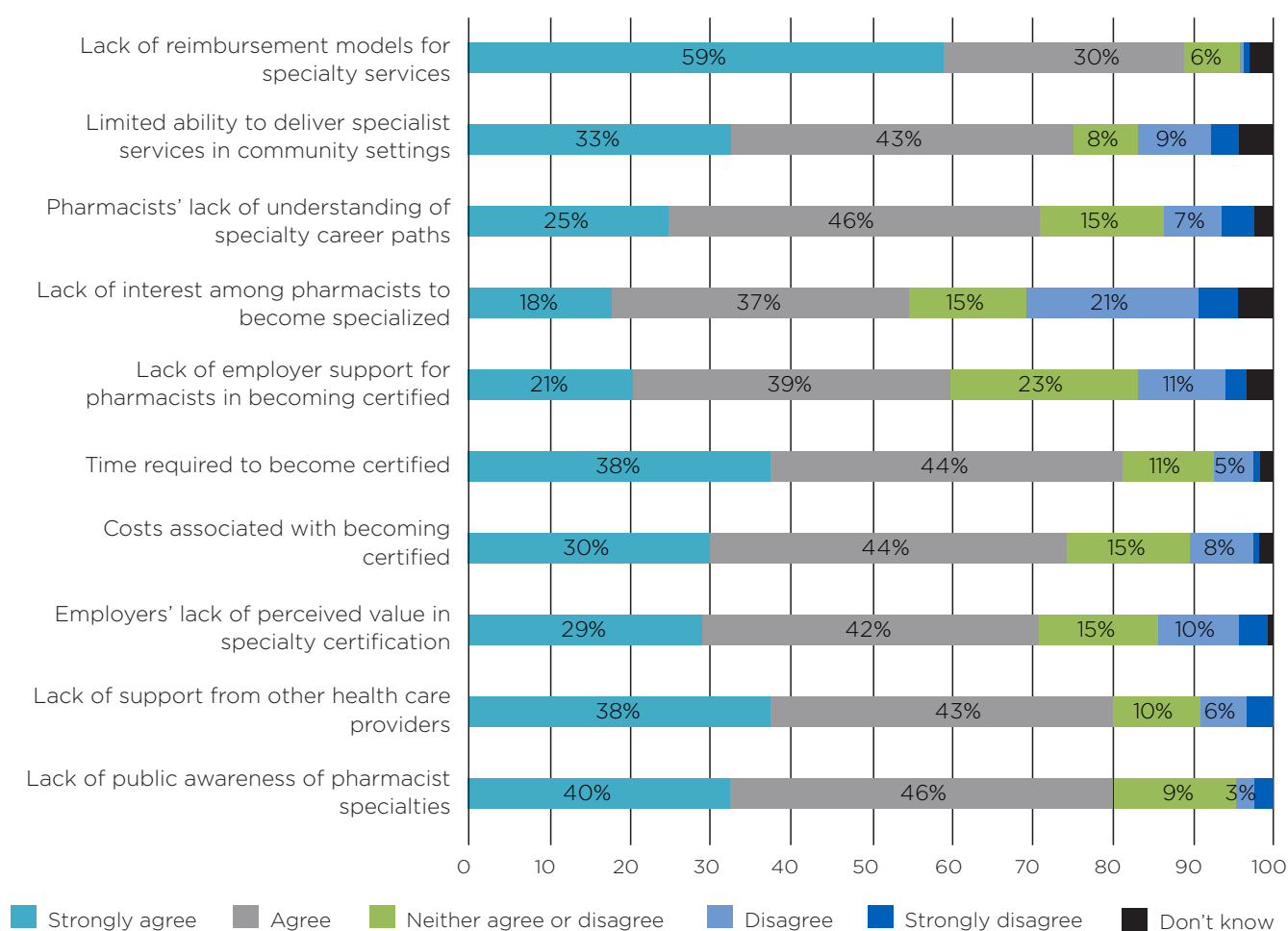
Table 21: Barriers to pharmacist specialty certification, as identified by pharmacists (n= 1595)



Similar to pharmacist respondents, employers who responded to the assessment survey ranked the following as the greatest barriers to pharmacist specialty certification (Table 22, n=117). Note: Respondents were able to select more than one answer.

- Lack of reimbursement models (89%)
- Lack of public awareness (86%)
- Time required to become certified (82%)

Table 22: Barriers to pharmacist specialty certification, as identified by employers (n=117)



Roundtable Notes

During the roundtable consultation with representatives from hospital pharmacy, many indicated they feel that pharmacist specialty certification would increase management's ability to assign pharmacists to specific units/services within a unionized workforce. Currently, some union collective agreements force hospital employers to treat everyone the same or assign duties based on seniority. It was suggested that a formal process for certification and recognition of pharmacist specialties would potentially enable hospital employers to make hiring decisions for specialty areas based on whether a pharmacist has obtained a specialty certification in the respective area. However, in this regard the employers consulted recognized that the unionization of hospital workforces may still create challenges.

Within the survey, certified pharmacist specialists were asked what they thought were the greatest challenges to becoming certified. Among those who responded to this open-ended question, 63% indicated that finding time outside of work to study as well as travel obligations are the biggest challenges to becoming certified, followed by the costs of certification and the lack of support from employers (n=227).

“Certification is not recognized by my employer (wrote examinations on my days off from work). Used my own time to prepare for examinations and professional development to maintain active certification.”

(Pharmacist survey respondent)

Definitions

This study found that one of the key barriers to establishing a formal process for pharmacist specialty recognition is the lack of consistent definitions and agreement on what constitutes pharmacist specialization.

As previously noted, The Task Group on Specialization in Pharmacy in Canada developed a consultation document in 2014, which included working definitions and descriptions of key concepts in pharmacist specialization and certification in Canada. The document was shared to initiate discussion, obtain feedback from pharmacy stakeholders/organizations and arrive at a consensus on the working definitions of some of the essential terms. These definitions were also used for the needs assessment to promote consistency in responses.

Despite the development of the consultation document, there continues to be lack of agreement within the pharmacy profession about definitions around pharmacist specialization. It is argued in this report that one of the major issues that must be addressed before we can take next steps towards pharmacist specialization is that we have no common language around advanced practice and specialization. A key finding from this assessment is that many within the profession (particularly among community pharmacy) include advanced disease state management within the definition of pharmacist specialization. The interview consultations revealed that there continues to be disagreement on the base terms and, more fundamentally, on the differences between advanced practice and specialization. Many stakeholders consulted for this assessment are challenged in separating the terms. Increasingly, much of what is defined as advanced practice is becoming entry to practice. For example, services that were considered advanced practice 10 years ago, such as administering injections and prescribing for common ailments/conditions, are increasingly becoming standard practice in many provinces.

When interviewed, pharmacy regulators also noted variations in how specialties are defined, and the level of training required in order to be considered a specialist. It is widely recognized that the hospital setting is more likely to recognize pharmacist specialization and build requirements for specialization into job descriptions. While regulators noted that pharmacist specialty titles are not formally recognized in Canada, it appears that pharmacists are currently operating as specialists.

Low and Strand (2010) noted the importance of the pharmacy profession in Canada moving toward the adoption of a universal vocabulary that is consistent with medicine and/or nursing. They argue this would lead to greater clarity around pharmacist responsibilities, regardless of practice location. The authors state that this would help bring about fair reimbursement strategies, which in turn would lead to more effective and seamless patient care. They also see this as helping to clarify pharmacy roles and protect the profession from the encroachment of nurses and pharmacy technicians, who are increasingly becoming involved in product-focused duties.

In Australia, the term specialization is not being used in the context of advanced practice. The Advanced Pharmacy Practice Framework for Australia (2012) reads:

“Where pharmacists choose to limit their scope of practice by focussing on particular areas of practice (e.g. compounding or medication management) they afford themselves the opportunity to increase their expertise and improve their performance. This is probably the reason that ‘specialisation’ in practice is often seen as being synonymous with ‘advanced’ practice. However, ‘specialisation’ refers only to scope of practice and does not, of itself, confer the additional expertise that underpins advanced pharmacy practice. It therefore follows that ‘specialisation’ can occur without any associated enhancement in performance.”

It is being recommended that the term “specialization” not be used in the context of advanced pharmacy practice in Australia. Instead, the terms “scope of practice” and “performance level” are favoured. There is strict control exerted over use of the term “specialization” under the Health Practitioner Regulation National Law Act 2009 (the ‘National Law’).

“Performance level” is defined as a level of accomplishment that reflects the expertise of the individual based on their training and experience. In this context, performance level does not relate to any particular service or range of services and is not a measure of the quality of services provided. Professional practice may be viewed as a continuum based on the post-entry-to-practice learning that occurs through all means available to the individual pharmacist. At a point along the continuum there is a “threshold” performance level above which performance can be considered “advanced”, while below that threshold performance can be considered to be at the “general” level.

Within this model, credentialing of Advanced Pharmacy Practice in Australia is likely to be practical only for those pharmacists achieving performance at the advanced level. Credentialing is expected to be introduced at the advanced level.

Stakeholder Understanding and Support

The literature identified a lack of support from a number of key stakeholder groups as a barrier to the evolving role of pharmacists in Canada.

- **Regulators:** lack of regulatory recognition (title) for pharmacist specialization in Canada.
- **Government and private payers:** lack of reimbursement models for specialist services.
- **Other health care providers:** lack of recognition and understanding of the evolving and expanding roles of pharmacists.
- **General public:** lack of general understanding about the expanding scope of practice of pharmacists and the role they can play in health care beyond dispensing.
- **Employer:** lack of general support for pharmacist specialization due to the lack of reimbursement models and demand from the public for specialist services.

Bussi res (2008) noted that specialty recognition is founded on the need to protect the public and is required within the pharmacy profession, much as it is within medicine. The key difference, however, is that pharmacist specialty practice is largely unrecognized within the pharmacy profession, by the public and other health care professions (Pradel et al., 2004).

Responses from the national survey conducted for this assessment indicate that pharmacists believe the greatest support for specialization to be coming from hospitals and long term care facilities as well as from pharmacists working in these areas and academia. Pharmacist respondents perceive the least amount of support to be coming from other health care providers, government, regulators and community pharmacy employers (Table 23, n=1850). Employer responses to this question were similar.

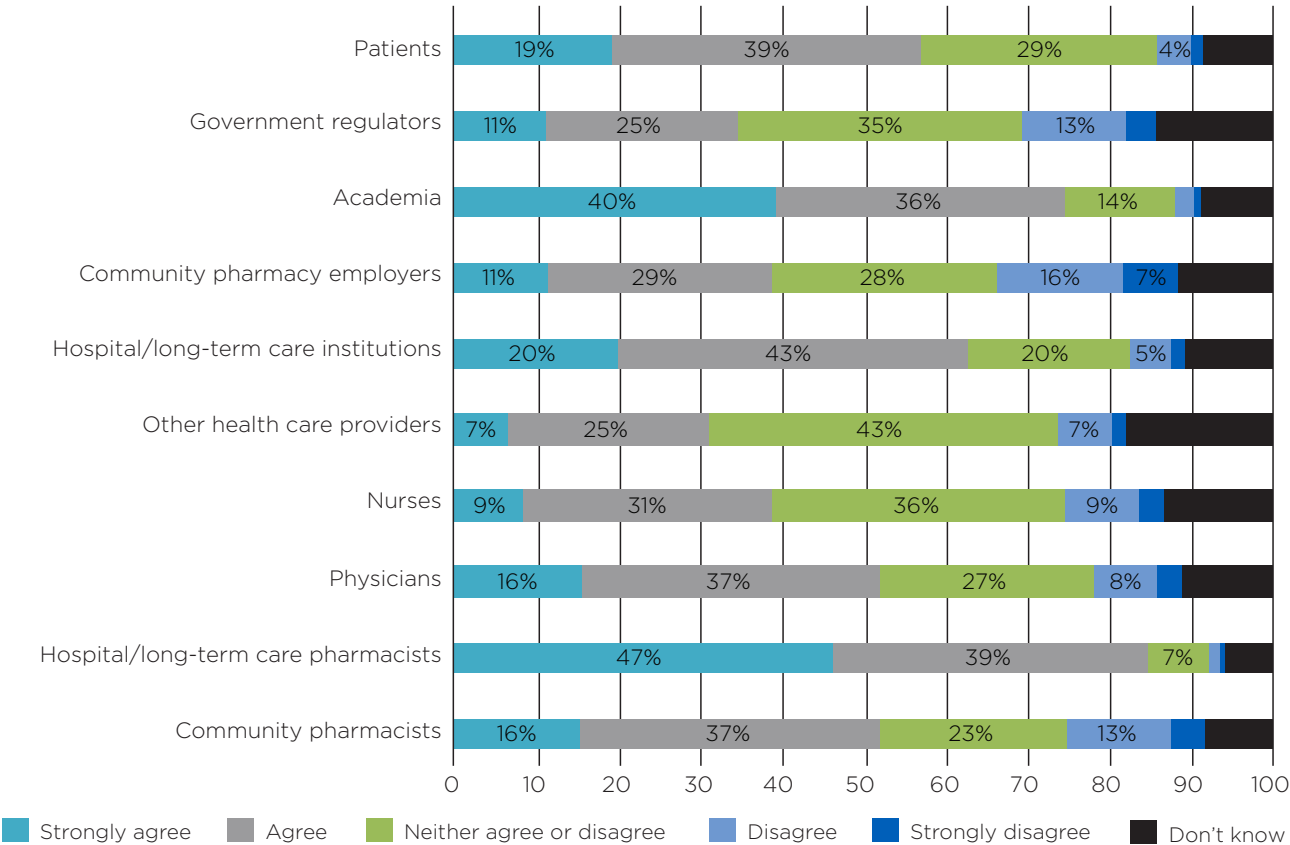
“The lack of funding from government and the recent cutbacks on generic prices really cut the margin of the business. Let us be realistic, I need to be able to survive to provide these services.”

(Pharmacist employer respondent)

“I do not see clients, government or employers willing to pay. As a pharmacist it is hard to justify the cost and time of the courses and to still get lousy hours and no more pay.”

(Pharmacist employer respondent)

Table 23: Support for pharmacist specialization among key stakeholders, as perceived by pharmacists (n = 1850)



Legislation and Processes to Support Specialization

Information obtained through the literature review indicates that one of the greatest challenges to pharmacist specialization in Canada is the voluntary nature of specialization and the lack of recognition from pharmacy regulators. Pharmacists with a particular expertise gained through experience and education are prohibited from using special designations/titles or otherwise advising the public and other health professionals of the enhanced level of care/service they are competent to offer (NACPP, 2003).

The regulators interviewed for this assessment (n=8) identified legislation as a major barrier to pharmacist specialization — particularly the inability of licensing bodies to reach consensus on specialty definitions for formal title recognition. The general feeling is that it would require a great deal of work to obtain agreement on pharmacist specialization across the various provincial and territorial authorities within Canada.

Financial

It was recognized by all those consulted through the interview consultations that creating a formal process for pharmacist specialist certification in Canada would be a costly endeavor. Many regulators, employers, educators and pharmacist association representatives questioned whether Canada has a sufficient number of interested pharmacists to make a formal process for certifying pharmacist specialists feasible. A review of the BPS process in the US shows that it took long-term vision and decades of investments to arrive at the current state of interest and demand for pharmacist specialization in the US.

While many stakeholders acknowledge the potential benefits of creating a Canadian certification process, most of those interviewed for this assessment recognize that it is unlikely to be feasible given the number of pharmacists in Canada. Many of those consulted indicated that it might be better to investigate whether international certification models and processes (e.g., BPS) could be adapted to the Canadian market.

While demand for BPS certification is growing rapidly in the US, those consulted for this assessment in interviews and roundtables indicated that Canada likely does not have a large enough base of pharmacists interested in becoming certified to make it feasible to establish a formal process for certification in Canada. NAPRA statistics show that as of January 1, 2015, there are 38,737 licensed pharmacists in Canada (NAPRA, 2015) compared to 290,780 in the US (BLS, 2015a). There are only approximately 656 (or less) Canadian pharmacists who have pursued a BPS and/or CCGP certification in the US — this represents approximately 1.7% (or less) of the Canadian pharmacist population (656/38,737) (NAPRA, 2015). While results from the survey found that pharmacists would be more inclined to pursue specialty certification if a process was available in Canada, the numbers may still be relatively small.

In addition to pharmacists in Canada, pharmacists in countries such as New Zealand and Australia utilize international certification bodies, such as BPS, to obtain specialty certification as their home countries do not have specialist credentialing systems. BPS has indicated an interest, where it makes sense, to adapt their certification process to the Canadian context. A number of those consulted through the interview and roundtable consultations feel strongly that if a BPS model is to be adopted in Canada, it should be adapted to the Canadian context. A smaller number of those consulted indicated that a formal certification process should be entirely Canadian-made. Some feel that the

cost and efforts required to “Canadianize” international certification modules and exams might not be worth the benefits, as differences between American and Canadian systems are not that dramatic. This is supported by the fact that pharmacists in countries such as New Zealand, Australia and even Middle Eastern countries obtain certification through the BPS system without modifications or changes in language. Pharmacists in several non-English speaking countries use the BPS system in English, without translation, suggesting that it may be sufficient and cost-effective for Canadian pharmacists to continue to pursue certification through international bodies.

4. RECOMMENDATIONS

Based on the key findings of this assessment, the following recommendations are being made to help inform the most appropriate model for Canada to support the formal recognition and certification of pharmacist specialization.

1. Obtain Agreement on Definitions of Pharmacist Specialization in Canada

It is recommended that the Blueprint for Pharmacy, the Task Group on Specialization in Canada and other key stakeholders seek agreement within the profession on definitions regarding what constitutes pharmacist specialization as opposed to advanced practice, and how to define different areas of specialization within the profession.

2. Research and Identify a Formal Process for the Recognition of Canadian Pharmacist Specializations

It is recommended that the Blueprint for Pharmacy and its partners examine possible regulatory models and processes for the formal recognition of pharmacist specialization in Canada. This would require a comparative review of other jurisdictions, other health professions' specialization recognition processes and consultations with respective regulatory authorities. It is clear from this assessment that a process for recognition of pharmacist specialization is needed, but it is beyond the scope of this report to make recommendations the optimal process.

3. Research Potential Processes for the Formal Certification of Pharmacist Specialization in Canada

It is recommended that further research be undertaken to determine the best model for the certification of pharmacist specialists in Canada. **Key options include:**

Adapt Existing Certification Processes to the Canadian Context

Investigate BPS and other pharmacist certification bodies (e.g., CCGP) to confirm their openness to and determine the associated benefits and costs of adapting their pharmacist specialty programs and processes to the Canadian context, including the costs of sustaining these processes. Note: This analysis would require a forecasting of the level of demand among Canadian pharmacists for specialty certification. This forecasting would also be required to assess the feasibility of options 2 and 3 below. Further analysis should also examine the dichotomy between pharmacist specialty services that could be provided in community settings versus those provided in hospital and long-term care facilities. It is likely that different approaches would be needed to facilitate interest in specialization certification processes by pharmacists in these different settings.

Formal Recognition of Pharmacy Specialization with Certification Obtained through International Certification Processes

Assess the costs and benefits of continuing to use the credentialing processes of international certification organizations without modifications to the Canadian context. The assessment might consider pass/fail rates for Canadian pharmacists, costs of the programs, potential negative impacts of specialty certification by an international credentialing body as opposed to a Canada body, etc.

Introduce a Canadian Model for the Formal Certification of Pharmacist Specialists

Undertake a feasibility study to examine the benefits and financial sustainability of a “made in Canada” pharmacist specialization certification program. The assessment should include a comparative cost-benefit analysis of various options, including type and varying forms of program and service offerings. Note: By forecasting the level of demand for specialty certification (see research option #1), it may be determined that a “made in Canada” solution is not financially viable or sustainable.

4. Conduct Public Outreach to Increase Stakeholder Understanding and Awareness of the Potential for Pharmacist Specialization

It is expected that demand for pharmacist specialization will be driven by the public, other health care providers, policy makers and regulators.

It is recommended that targeted stakeholder outreach and engagement be undertaken in order to increase the awareness of the scope of services that pharmacists can offer within the Canadian health care systems and through their involvement in collaborative teams. Increasingly, public and other key stakeholder understanding of the potential for expanded roles for pharmacists (including specialization) is viewed as a key step in influencing demand for the formal recognition and certification of pharmacist specialization. Outreach and engagement should be targeted and tailored to the following groups:

1. Outreach and engagement with Canadian **pharmacists** to ensure that the majority of the profession understand the importance and value of pursuing certification in specialty areas.
2. Outreach and engagement with **representatives in provincial/territorial pharmacy associations** in order to coordinate messaging and outreach related to pharmacist specialization.
3. Outreach and engagement with **other health professionals** to increase their understanding and support for pharmacists working to their full scope of practice and the possible benefits derived from pharmacist specialization, including improved health care and system outcomes.
4. Outreach and engagement with **senior leaders in various provincial/territorial health ministries and pharmacy regulatory bodies** to increase their understanding of how expanded roles for pharmacists and specialization can contribute to better health outcomes for Canadians as well as greater efficiencies within the health care system. This will also be an important step in pursuing agreement on common definitions of specialty areas.
5. Broader engagement to increase **public** understanding and support for expanded roles of pharmacists, including specialization, within the Canadian health care system. Greater public support may lead to increasing demand for pharmacist specialization.

REFERENCES AND RESOURCES

Alberta Pharmacists' Association. (2010). *Alberta Pharmacy Practice Models Initiative - Evaluation Report*. Prepared by Network Healthcare.

Alberta Pharmacists' Association. (2010). *Alberta Pharmacy Practice Models Initiative - Final Data Summary*. Prepared by Network Healthcare.

Australian Pharmacy Council. (2014). *Evaluation and Credentialing of Advanced Practice Pharmacists - First Round Consultation*.

Australian Pharmacy Council. (2014). *Evaluation and Credentialing of Advanced Practice Pharmacists - Second Round Consultation*.

Advanced Pharmacy Practice Framework Steering Committee (APPFSC). (2012). *An Advanced Pharmacy Practice Framework for Australia*. Retrieved from <http://advancedpharmacypractice.com.au>

Blair et al. (2009). Proposed Revision to the Existing Specialty and Specialist Certification Framework for Pharmacy Practitioners. AACP White Paper. *Pharmacotherapy* 29(2):3e-13e.

Board of Pharmacy Specialties. (2012). *Petitioners Guide for Recognition of a Pharmacy Practice Specialty*. Retrieved from <http://www.bpsweb.org/pdfs/petitionersguide.pdf>

Board of Pharmacy Specialties. (2013). Board of Pharmacy Specialties White Paper: Five-Year Vision for Pharmacy Specialties. Retrieved from http://www.bpsweb.org/pdfs/BPS_Whitepaper_Jan2013.pdf

Board of Pharmacy Specialties. (2014). *BPS Pharmacy Specialty Structure and Framework Discussion Paper*. Retrieved from http://www.bpsweb.org/about/BPS_structure_discussion_paper.pdf

Buckley, Bruce. (2005). *Privileging, Credentialing Poised for More Growth*. Retrieved from <http://www.pharmacypracticenews.com>

Bureau of Labor Statistics. (2015a). *Occupational Employment and Wages, May 2014: Pharmacists*. Retrieved from <http://www.bls.gov/oes/current/oes291051.htm>

Bureau of Labor Statistics. (2015b). *Occupational Outlook Handbook: Pharmacists. Job Outlook*. Retrieved from <http://www.bls.gov/ooh/healthcare/pharmacists.htm#tab-6>

Bussi res, Jean-Fran ois. *Hospital Pharmacy in Canada 2005-2006: Hey Kid ... What do you do now?* Facult  de pharmacie, Universit  de Montr al [PowerPoint presentation].

Bussi res, Jean-Fran ois and Chong, Judy. (2008). Should a Specialty License be Required for Pharmacists to Practise in Hospital Settings? *Can J Hosp Pharm* 61(3).

Canadian Board of Specialties in Pharmacy. (2015). *Report of the Committee on Specialties*. Prepared for the Pharmacy Examining Board of Canada. Internal document.

Canadian Council on Continuing Education in Pharmacy. (2009). *Policy on the Accreditation of Continuing Education Certificate Programs*. Retrieved from <http://www.cccep.ca>

- Canadian Council on Continuing Education in Pharmacy. (2009). *Briefing Document: Certificate Programs and Certification*. Internal document.
- Canadian Pharmacists Association & Canadian Council on Continuing Education in Pharmacy. (2010). *Summary Report: CPD/CE Policy Summit Advancing Innovation and Excellence in Pharmacy Practice*.
- Canadian Society of Hospital Pharmacists. (2010). *Specialized Pharmacy Practice Residency*. Retrieved from <http://www.cshp.ca>
- Carmichael, Jan M. et al. (2004). Establishment and Outcomes of a Model Primary Care Pharmacy Service System. *Am J Health Syst Pharm* 61(5), 472-82.
- Council on Credentialing in Pharmacy. (2009). *Scope of Contemporary Pharmacy Practice: Roles Responsibilities, and Functions of Pharmacists and Pharmacy Technicians*. Retrieved from http://www.pharmacycredentialing.org/contemporary_pharmacy_practice.pdf
- Council on Credentialing in Pharmacy. (2010). *Credentialing in Pharmacy: A Resource Paper*. Retrieved from http://www.pharmacycredentialing.org/files/CCP_Special_Feature.pdf
- Gates, Ernest P. (2013). *Specialization is Pharmacy's Future*. Drug Topics. Editorial: Jan 14, 2013. Retrieved from <http://drugtopics.modernmedicine.com>
- Gourley, Dick R. et al. (1997). Competency, Board Certification, Credentialing, and Specialization: Who Benefits? *Am Journal Manag Care* 3(5), 795-807.
- Institute of Credentialing Excellence. (2010). *Defining Features of Quality Certification and Assessment-Based Certificate Programs*. Retrieved from <http://www.credentialingexcellence.org/>
- Institute of Credentialing Excellence. (2009). *ICE 1100 2010(E) - Standard for Assessment-Based Certificate Programs*. Retrieved from <http://www.credentialingexcellence.org/>
- Knapp & Associates International, Inc. (2009). *A Review and Analysis of Certification Specialization Options. Summary Report, Modified for Public Distribution*. Prepared for the Board of Pharmaceutical Specialties.
- Kruger, Johann. (2013). *Specialty in Pharmacy: Practice Perspective* [PowerPoint presentation at the South African Pharmacy Council Conference, June 2013]. Retrieved from <http://sapconference.za.org/presentation.php>
- Laven, David L. (2002). A Review on Specialization in Pharmacy - Part I. *J Pharm Pract* (15), 267-278.
- Laven, David L. (2002). A Review on Specialization in Pharmacy - Part II: A Commentary on Postgraduate Training and Pharmaceutical Care. *J Pharm Pract* (15), 504-514.
- Low, Alan and Strand, Linda. (2010). A New Dawn for Pharmacy. *The Tablet (April/May)*, 12-13. Retrieved from <http://www.bcpharmacy.ca/>
- National Advisory Committee on Pharmacy Practice. (2003). *A Regulatory Framework for Recognition and Certification of Pharmacist Specialists in Canada*. Prepared for the National Association of Pharmacy Regulatory Authorities. Accessed March 2015.
- National Association of Pharmacy Regulatory Authorities. (2014). *National Statistics*. Retrieved from http://napra.ca/pages/Practice_Resources/National_Statistics.aspx

National Association of Pharmacy Regulatory Authorities. (2015). *Advisory Committees*. Retrieved from <http://napra.ca/pages/About/AdvisoryCommittees.aspx?id=1907>

Network Health care. (2010). *Alberta Pharmacy Practice Models Initiative - Evaluation Report*. Prepared for the Alberta Pharmacists' Association.

Network Health care. (2010). *Alberta Pharmacy Practice Models Initiative - Final Data Summary*. Prepared for the Alberta Pharmacists' Association.

Nissen, Lisa. (2013). *Developing an Advanced Pharmacy Practice Framework: Key Learning's and Strategic Outcomes* [PowerPoint presentation]. Queensland University of Technology. Retrieved from http://www.cshp.ca/dms/dmsView/1_1_CSHP-APPF-Nissen.pdf

Parent, Marc. (2012). *Specialization in Pharmacy: The Quebec Experience*. Faculty of Pharmacy, Université Laval.

Peartree Solutions Inc. (2004). *A Situational Analysis of Human Resource Issues in the Pharmacy Profession in Canada*. Based on a Proposal by the Canadian Pharmacists Association for Human Resources Development Canada. Retrieved from <http://blueprintforpharmacy.ca>

Pradel, Françoise G. et al. (2004). White Paper: Value of Specialty Certification in Pharmacy. *J Am Pharm Assoc* 44(5), 612-620.

Romanow, R. (2002). *Building on Values: The Future of Health Care in Canada*. Prepared for the Commission on the Future of Health Care in Canada. Retrieved from: http://www.cbc.ca/healthcare/final_report.pdf

Sheehan, Nancy. (2010). *Pharmacy Specialty Residency Programs in Canada: Present and Future Considerations* [Powerpoint Presentation]. Université de Montréal. Retrieved from https://www.afpc.info/sites/default/files/Sheehan_specialty_res_AFPC.pdf

Task Group on Specialization in Pharmacy. (2014). *Consultation Document: Definitions of Advanced Practice and Specialization*.

World Health Organization. (2006). *Developing Pharmacy Practice: A Focus on Patient Care*. Department of Medicines Policy and Standards, Geneva, Switzerland. In collaboration with International Pharmaceutical Federation (2006: WHO/PSM/PAR/2006.5).

APPENDIX A

GENERAL INTERVIEW GUIDE

BACKGROUND

The Canadian Pharmacists Association and the Blueprint for Pharmacy, along with a number of key partners are working together to undertake a needs assessment to determine the need and demand for the recognition and certification of specialty pharmacy practice in Canada.

What follows is the interview guide that will be used in your upcoming interview. Your responses will be kept confidential and will be combined with those of other stakeholders.

Please feel free to contact Kelsey Skromeda, Project Manager, Blueprint for Pharmacy at: 613-523-7877 ext. 224 or by email: kskromeda@pharmacists.ca should you have any questions or require further information on this project. Should you have any questions specifically about the interview, please contact Jennifer Smith, President, Intergage Consulting Group Inc. at: 613-761-7400, ext. 201 or by email: jlsmith@intergage.ca.

DEFINITION

The project is designed to assess the need and support for the formal recognition and certification of pharmacy specialties in Canada. For this assessment, pharmacy specialty is defined as follows:

Pharmacist specialists maintain an active clinical practice that is limited to a particular type of patients (e.g., geriatrics, ambulatory care), part of the body (e.g., cardiology), medical condition (e.g., infectious disease, oncology), or location of practice (e.g., critical care). Specialties can be either broad (e.g., pharmacotherapy specialists, who have an advanced practice that covers complex issues arising from a broad range of medical conditions for a wide variety of patients and diseases) or focused (e.g., oncology or cardiology specialists, who have a practice that covers medically complex patients for a limited range of medical conditions in a specific patient group). Pharmacy specialization requires an advanced body of knowledge distinct of the general practitioner and a specialized or enhanced depth of competency including knowledge, skills, attitudes and accountabilities based on the physical, social, and health sciences, sufficient to manage the most complex of cases and provide clinical leadership in the field.

Pharmacist specialists have completed additional clinical training in their specialty area, beyond typical entry to practice credentials, which may include the completion of formal educational programs and/or extensive clinical experience. Generally, specialty competencies attained through formal learning/education programs and practice in the field are recognized through a certification process. See Appendix A for an expanded glossary of relevant terms.

CURRENT STATE OF PHARMACIST SPECIALIZATION

1. Based on your experience, how common is it for pharmacists in Canada to be practicing in specialty positions that meet the criteria in the definition that we provided on the previous page — whether or not they are being recognized as specialists through a formal specialty certification system?
2. To your knowledge how common is it for pharmacists who are currently practicing in specialized roles in Canada to be formally recognized as specialists? Do you think those pharmacists who are not being formally recognized as specialists would benefit from formal recognition? If so, how? How would the patients benefit?

DEMAND/INTEREST IN PHARMACY SPECIALIZATION

Currently there is no formal pharmacist-specific specialist certification system in Canada (only certification through the US Board of Pharmacy Specialties and disease state specialties, such as Certified Diabetes Educator designations).

3. From your perspective, what is the level of demand/interest among practicing pharmacists in Canada towards pharmacist specialization (based on the definition of specialization previously provided)?

Probes:

- What do you see as the level of demand for pharmacist specialization among other stakeholders? e.g., employers, patients, other health professionals.
 - Do you think there is interest among these stakeholders for a formal certification system for recognizing pharmacist specialization in Canada?
4. Can you describe the pharmacist specialty roles that you feel are currently in the greatest demand across Canada (e.g., oncology; critical care, diabetes, etc.)? In what settings are these roles in greatest demand?

Probes:

- Who performs these roles when/if there is no specialized pharmacist available in these areas?
 - From your experience, for those currently performing these roles, do they meet the highest standards of quality required by patients? By the profession?
5. What factors are in place that will either support or act as barriers to the implementation of these pharmacist specialist roles/positions?

Probes:

- What support or challenges might you anticipate from other health professionals, employers, pharmacists, government?

SUPPORT FOR PHARMACY SPECIALIZATION RECOGNITION/CREDENTIALING

6. To your knowledge does any organization or jurisdiction in Canada support pharmacist specialization (e.g., formally recognize, hire and/or pay higher salaries in recognition of specialization) better than others? If so, please explain?

Probes:

- To your knowledge, does Canada adequately support pharmacy specialization?
7. Do you feel there is a need for post-graduate pharmacy residencies/fellowships to train specialists?
8. Would you support the creation of a formal certification process for pharmacist specialization?

Probes:

- Why/why not? What are the benefits/drawbacks of developing and implementing a formal certification process for pharmacist specialization?
9. Is it feasible to introduce a formal certification process for pharmacy specialization in Canada?

Probes:

- As you may be aware, some Canadian pharmacists currently take the Board of Pharmacy Specialties (BPS) exams in the US for specialty recognition. In your opinion, what are the pros/cons of this? Some have suggested that Canada could adapt the BPS model to Canada but develop and run the certification system in Canada? Another proposal is for the BPS to adapt their current certification exams to Canadian requirements but have BPS continue to oversee and manage the specialization certification process? What do you think of both proposals? What are the pros and cons of each? Currently BPS certifies in the following pharmacist specialty areas:
 - Ambulatory care
 - nuclear pharmacy
 - nutrition support pharmacy
 - oncology pharmacy
 - pharmacotherapy
 - psychiatric pharmacy
 - You may be aware that many Canadian pharmacists obtain disease state management specialties, such as CDE, CRE, etc. What is your opinion of these multidisciplinary specialties? Do you see a value and need for recognition of these certification programs?
10. Do you feel that a formal specialty certification program would be in conflict/competition with new Canadian entry to practice PharmD programs or existing Canadian baccalaureate pharmacy programs?

Probes:

- Do you consider that current post-graduate programs (specialized residencies, fellowship) prepare adequately pharmacists for certification in a specialty?
- Do you think that current post-graduate programs covers domains that should be recognized as specialties in pharmacy?
- Do you foresee the need for post PharmD specialty fellowships or residencies programs?

REQUIREMENTS

11. What should be the model or framework for a pharmacy specialty certification process in Canada?
12. What factors need to be in place to support the introduction of a formal certification system for pharmacy specialists?

Probes:

- What are the greatest opportunities/barriers to the establishment of a specialist certification system in Canada?
13. What more can/should faculties, regulators, and professional associations of pharmacy practice do to further contribute to the development of a formal specialty certification process?
 14. The term advanced practice is a different yet related concept to pharmacist specialization. Advanced practice has been defined as “a practice that is so significantly different from that achieved at initial licensure that it warrants recognition and generally includes an advanced scope of professional practice”. Some examples are Additional Prescribing Authority (APA) in Alberta and the Extended Practice Pharmacists (EPPh) in Manitoba. The concepts of advanced practice and specialization are related, but different. Pharmacists with advanced practice credentials may or may not also meet the previously stated definition of pharmacist specialists, depending on the nature of the individual’s practice. Similarly, pharmacist specialists may or may not require advanced practice credentials within their practices.

Do you feel that the interest and demand for advanced practice credentials is a trend that will continue to be implemented across Canada?

Probes:

- Given trends in Canada and elsewhere, in your opinion, is advance pharmacy practice becoming entry level skills upon graduation?
- Do you feel that these advance practice credentials are more or less important and/or relevant than specialization credentials?
- Do you feel there is a need for a formal national recognition or certification process for advanced practice? If so, would the model or framework for this process be similar to that which might be created for pharmacist specialization?

CONCLUDING QUESTIONS

15. Do you have any suggestions regarding interesting or best practices models or frameworks that could be used for a pharmacy specialist recognition or certification system in Canada?
16. Are there any documents, guidelines, evaluations, etc., on the topic that you are aware of, which would help to inform this review?
17. Is there anything else that you would like to add regarding this topic that we have not already discussed?

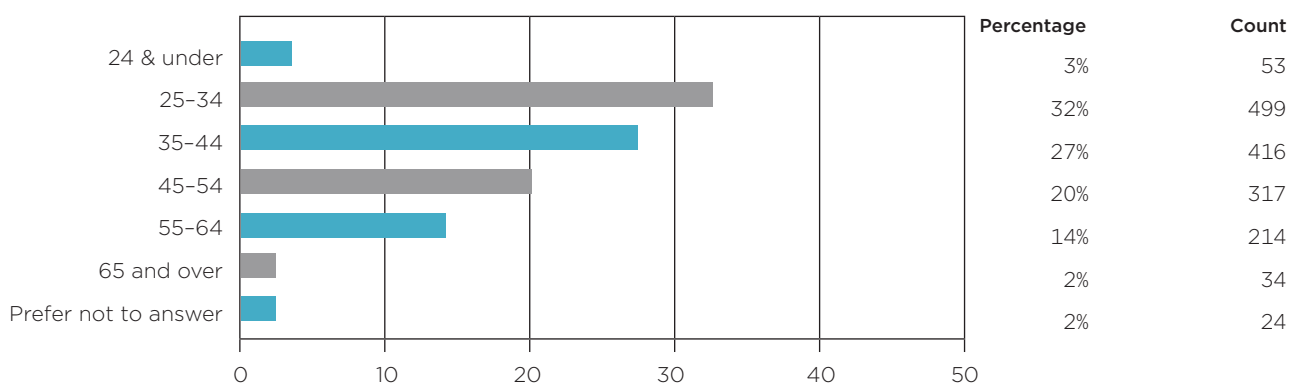
— *Thank you for participating in this interview consultation* —

APPENDIX B

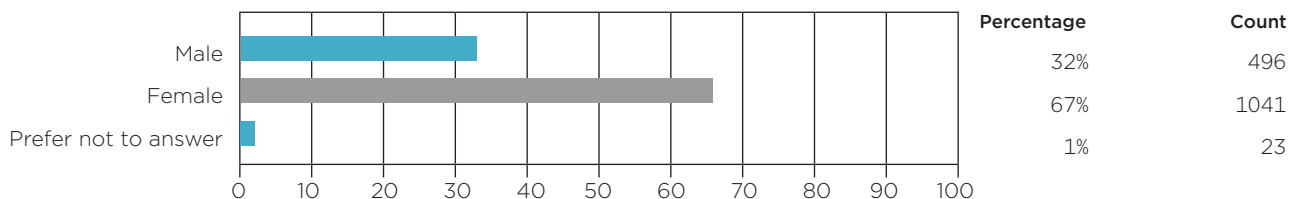
PROFILE OF SURVEY RESPONDENTS

PHARMACIST SURVEY RESPONDENT PROFILE

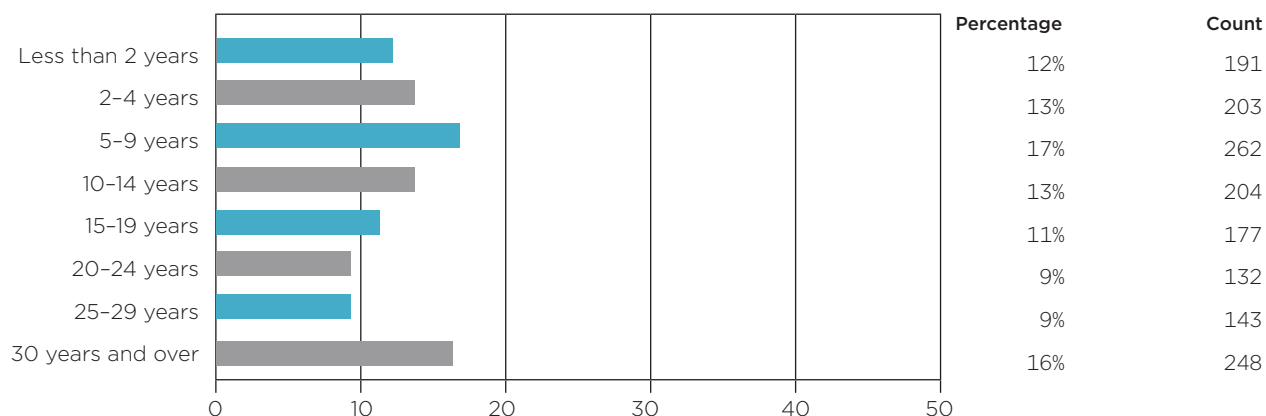
Age



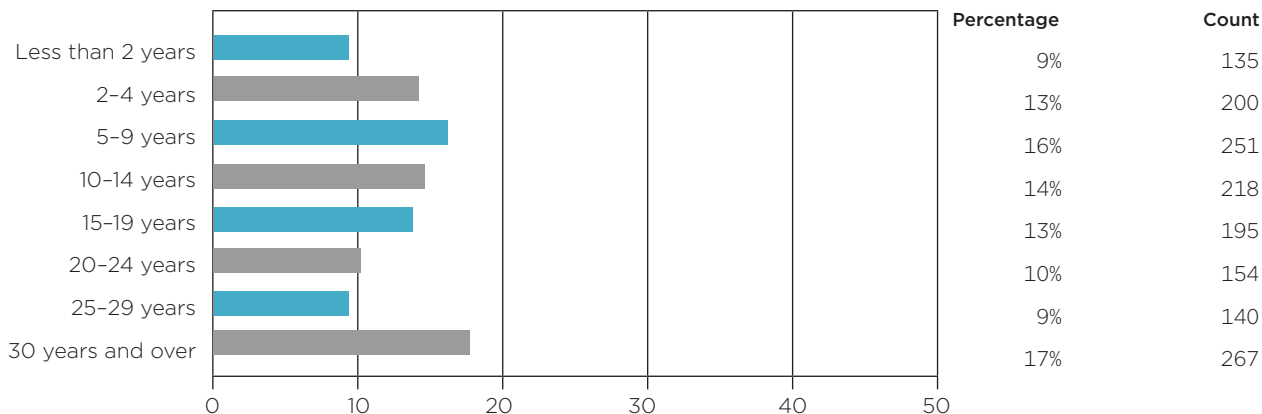
Gender



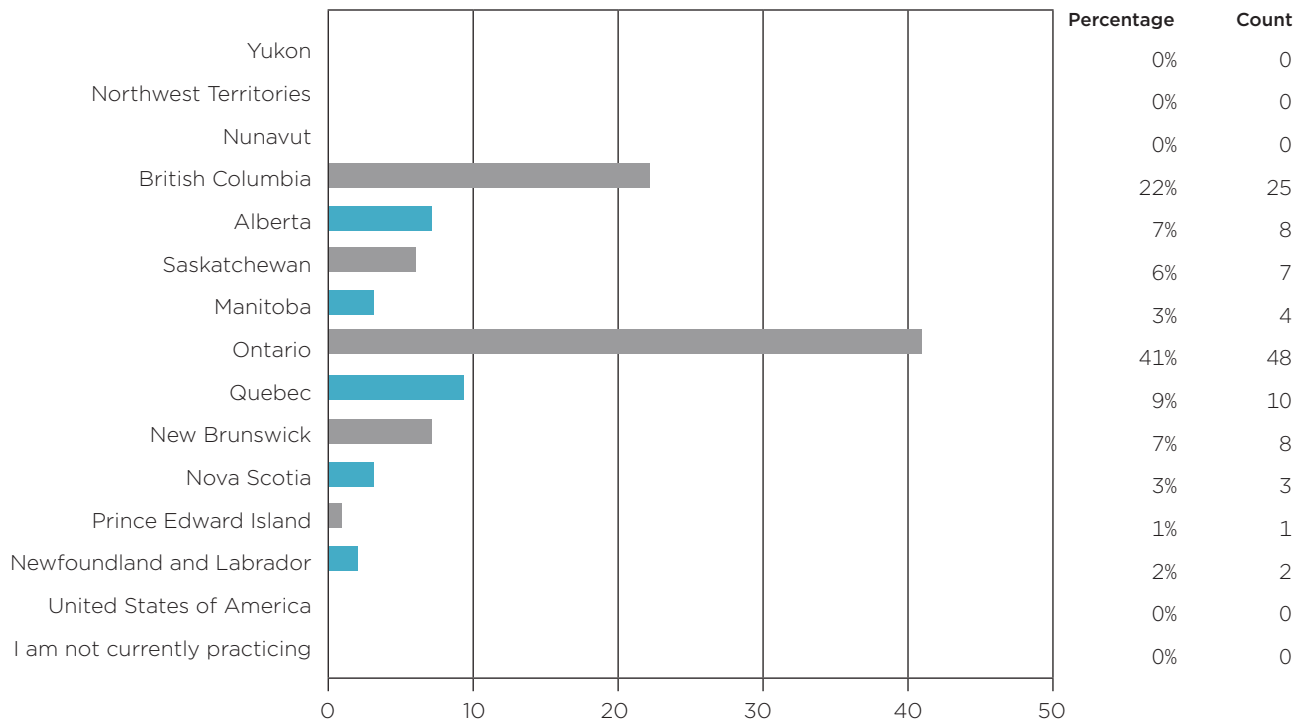
How long have you been licensed as a pharmacist in Canada?



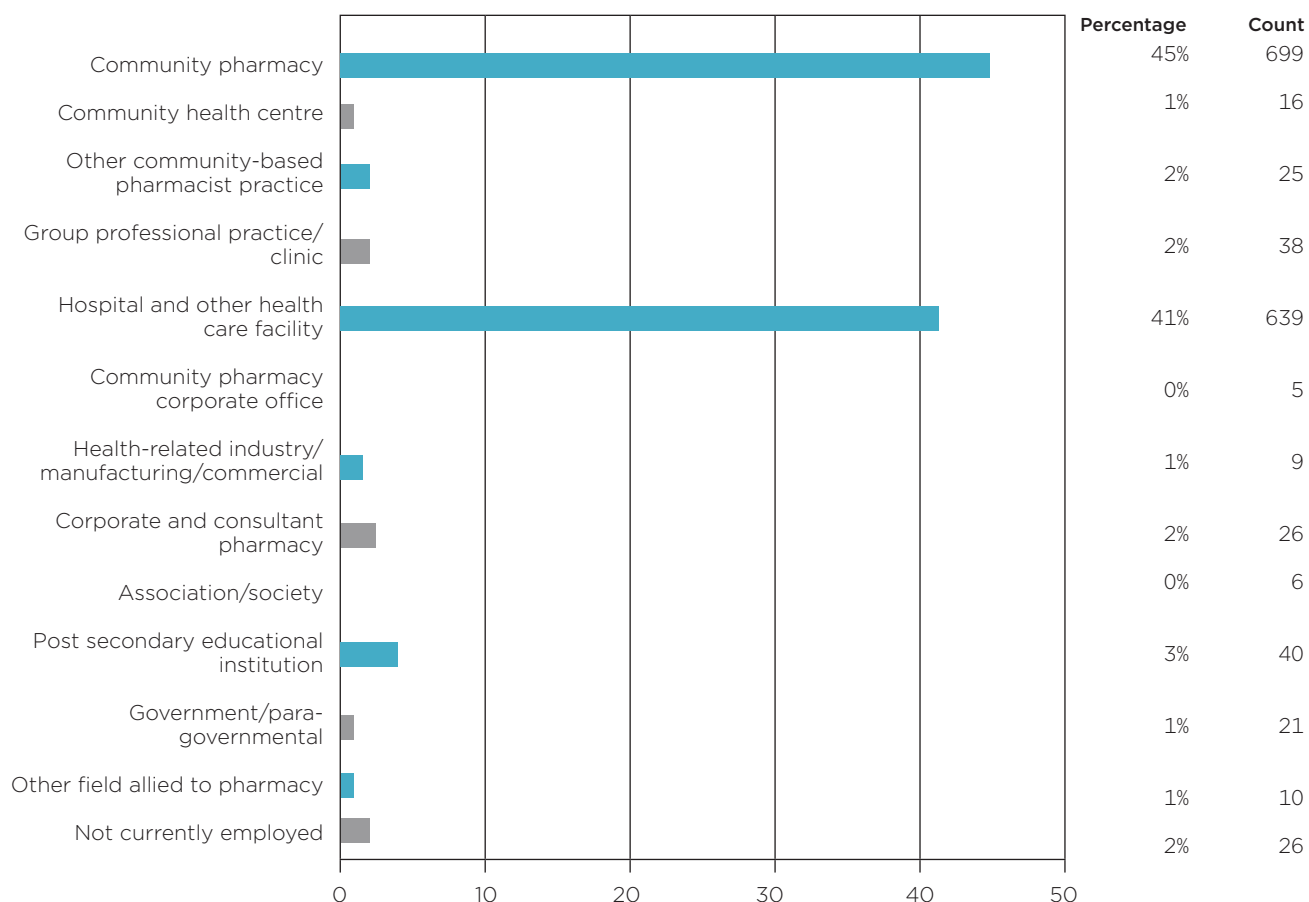
Please indicate the total number of years you have been practicing in pharmacy.



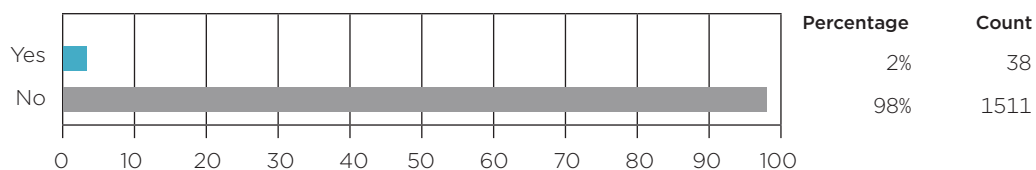
Please indicate where you are currently practicing



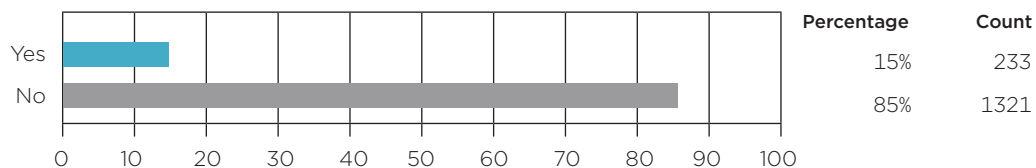
What is your current primary area of practice?



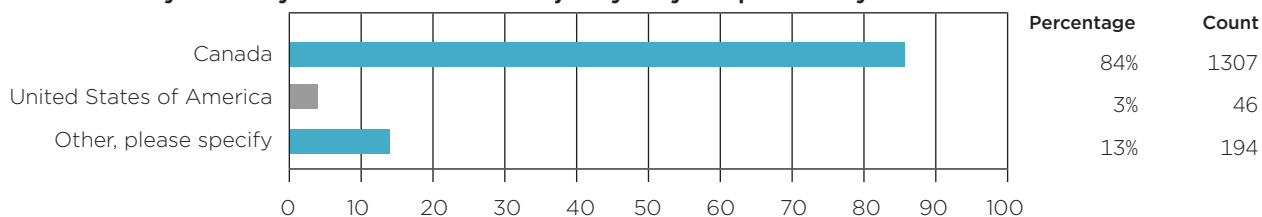
Are you a pharmacy student?



Are you an international pharmacy graduate?

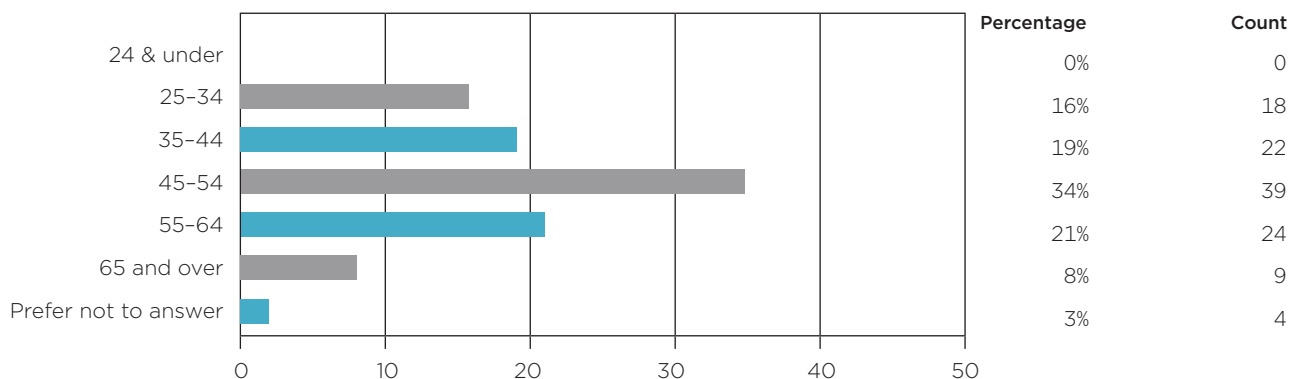


Please identify where you obtained the majority of your pharmacy education

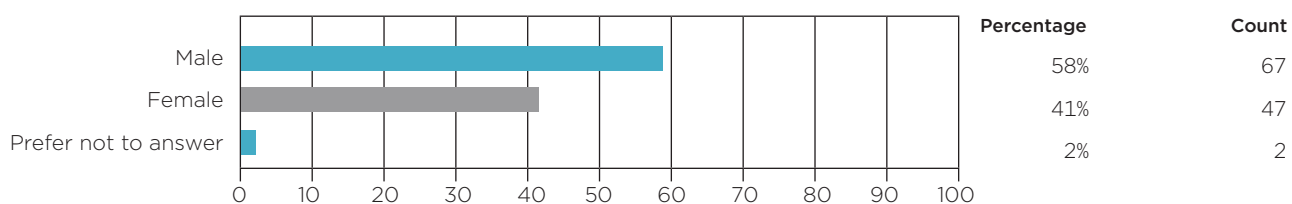


EMPLOYER SURVEY RESPONDENT PROFILE

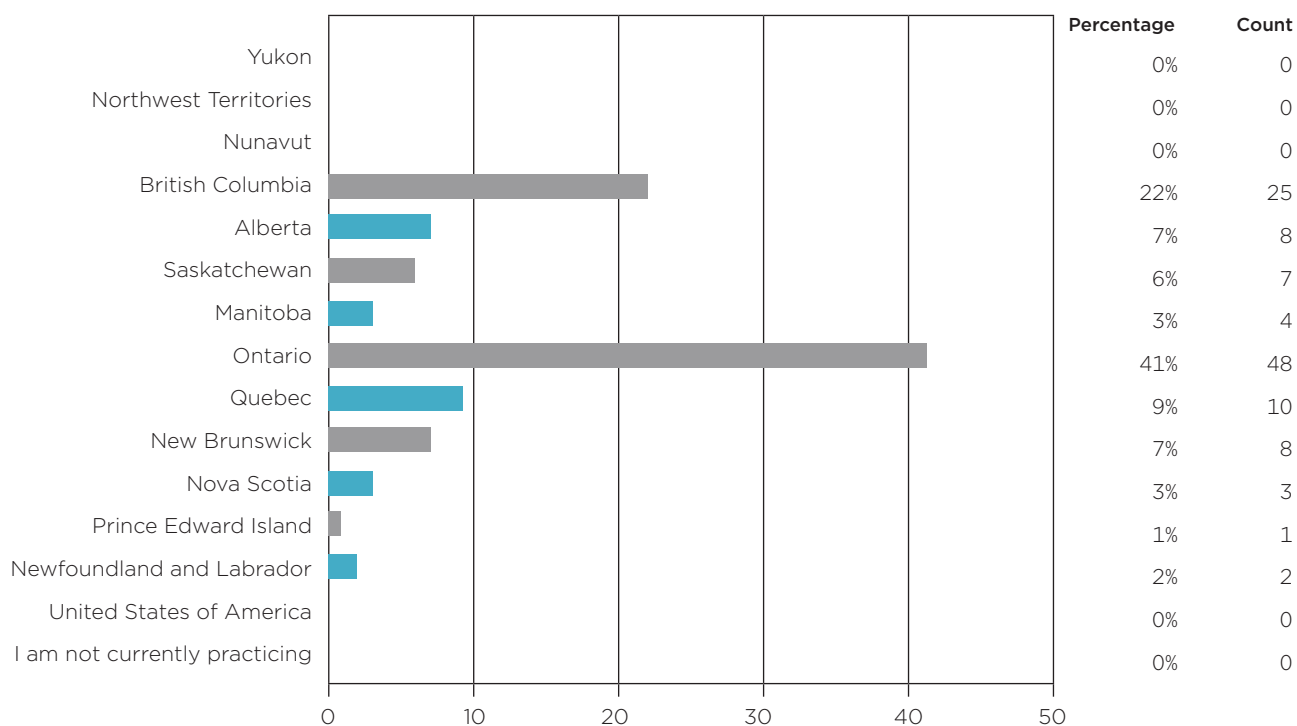
Age



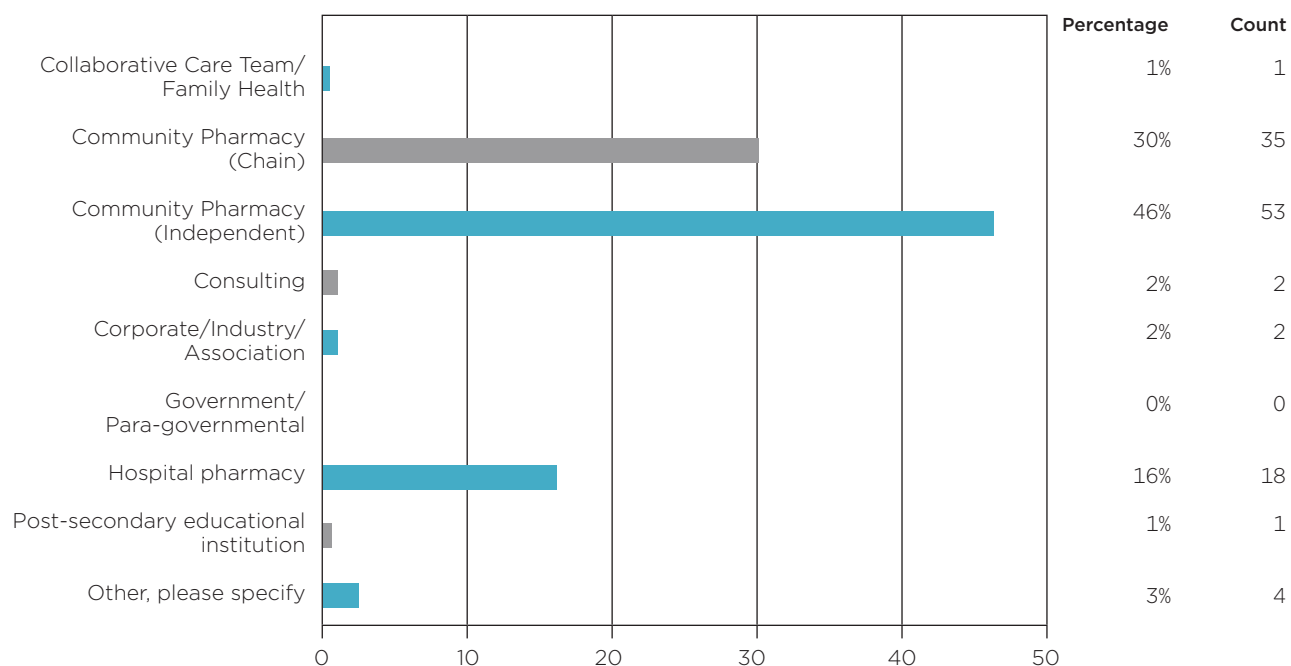
Gender



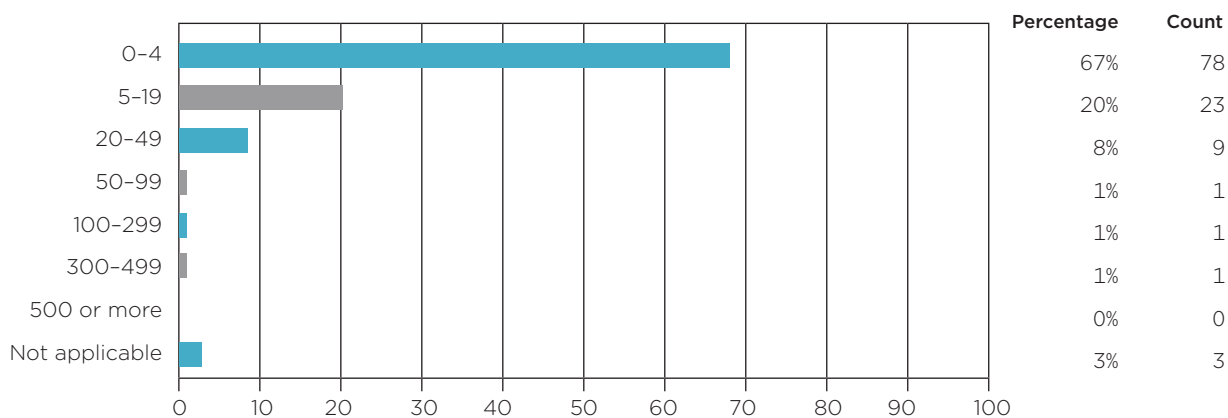
Please indicate where you are currently practicing.



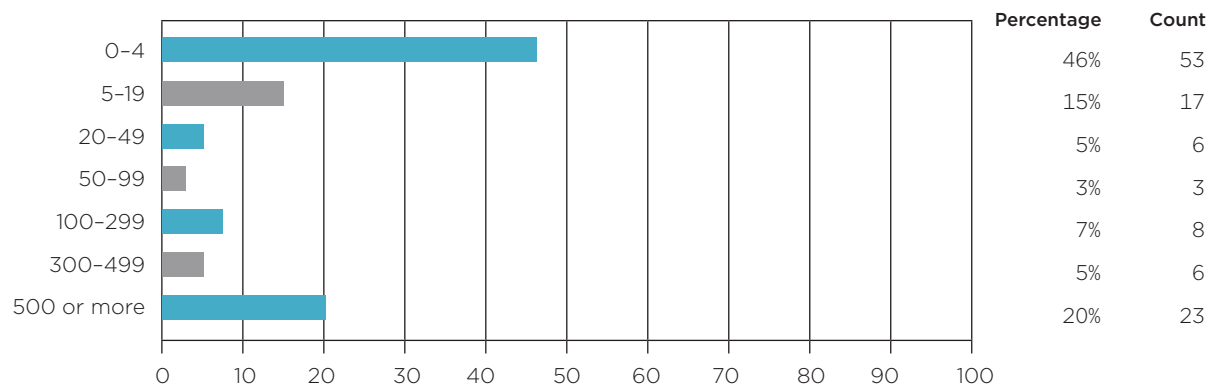
Please indicate the type of organization/position that you represent.



Please indicate the number of pharmacists employed at your site/store.



Please indicate the number of pharmacists employed by your corporate entity.



APPENDIX C

SURVEY INSTRUMENTS

WELCOME! This research is designed to examine the need and support for a formal certification process to recognize areas of pharmacist specialty practice in Canada.

In appreciation of your time and effort, all survey respondents who provide their name and email address at the end of this survey will be entered into a draw for 1 of 3 \$100.00 Visa gift certificates. Your survey answers are confidential. They will be combined with all other respondents' answers and will be used for research purposes only. We can assure you that all personal information collected as a result of this survey is protected under the Privacy Act and will not be shared with any third parties. NOTE: This survey will ask a different set of questions based on whether you self-identify as a pharmacist employer or a pharmacist. This survey is intended for practicing pharmacists and employers of pharmacists only. If you are both a pharmacist and a pharmacist employer, we ask that you please self-identify as an employer.

Please tell us, for the purpose of this survey, how you would like to self-identify?

☐ I am a pharmacist

☐ I am a pharmacist employer

INTRODUCTION

The Canadian Pharmacists Association and the Blueprint for Pharmacy are working with key partners on a multi-stakeholder assessment to examine the need and support for a formal certification process to recognize areas of pharmacist specialty practice in Canada. This study includes a literature and jurisdictional review; key stakeholder interviews and a national survey of pharmacists and employers; culminating in two roundtables with thought leaders within the profession. Consideration of the potential need for a system to formally recognize specialty pharmacist practice in Canada began in the mid-1980s. Since this time, a number of key stakeholders have worked together to advance the dialogue regarding the formal recognition of pharmacist specialization. We hope you will participate in this important survey. It is expected that the survey will take approximately 20-25 minutes to complete and can be completed anytime of the day – from work or home.

SURVEY OBJECTIVE

Currently, there is no process in place by the pharmacy profession in Canada to formally recognize or provide specialty certification to pharmacists. Certification is a process of qualifying a specialist. Canadian pharmacists may obtain specialty certification in pharmacy through a certifying body in another country (e.g. Board of Pharmacy Specialties in the USA). However, this certification does not lead to recognition as a pharmacist specialist in Canada. Pharmacists may obtain certification in Canada for disease-specific practice areas, including diabetes (CDE) and asthma (CAE). However, this type of certification is available to all health care professionals and is not specific to pharmacists. This project is designed to assess the need, feasibility and support for the formal recognition and certification of pharmacist specialization in Canada.

Detailed Definitions — Review only if Required

For the purpose of this survey, we have chosen to define pharmacist specialists, pharmacist specialty certification and advanced pharmacist practice as follows:

Pharmacist Specialists: maintain an active clinical practice that is limited to a particular type of patients (e.g., geriatrics, ambulatory care), part of the body (e.g., cardiology), medical condition (e.g., infectious disease, oncology), or location of practice (e.g., critical care). Specialties can be either broad (e.g., Pharmacotherapy specialists, who have an advanced practice that covers complex issues arising from a broad range of medical conditions for a wide variety of patients and diseases) or focused (e.g., oncology or cardiology specialists, who have a practice that covers medically complex patients for a limited range of medical conditions in a specific patient group). Pharmacy specialization requires an advanced body of knowledge distinct of the general practitioner and a specialized or enhanced depth of competency including knowledge, skills, attitudes and accountabilities based on the physical, social, and health sciences, sufficient to manage the most complex of cases and provide clinical leadership in the field. Pharmacist specialists have completed additional clinical training in their specialty area, beyond typical entry to practice credentials, which may include the completion of formal educational programs and/or extensive clinical experience. Generally, specialty competencies attained through formal learning/education programs and practice in the field are recognized through a certification process.

Pharmacist Specialty Certification: For this study it represents a formal designation earned by a person to assure a standard of knowledge and qualification in a subject area and/or to perform a job or task. The assessment process is administered by a non-governmental organization that grant a time-limited credential in a designated area of specialty to a pharmacy practitioner whose education, experience, knowledge and skills meet or exceed the predetermined standards and qualifications established by the organization. In addition, it establishes criteria and standards to maintain continued competence and retain the credential.

Advanced Pharmacist Practice: is a practice that is so significantly different from that achieved at initial licensure that it warrants recognition by professional peers and the public of the expertise of the practitioner and the education, training and experience from which that capability was derived. [Advanced Pharmacy Practice Framework Steering Committee, 2012]

PHARMACISTS SURVEY

Background

Currently, there is no process in place by the pharmacy profession in Canada to formally recognize or provide specialty certification to pharmacists. Certification is a process of qualifying a specialist.

1. Please indicate all of the professional credentials you have achieved in pharmacy (select all that apply).

- ☐ Bachelor of Science in Pharmacy
- ☐ Entry to practice PharmD
- ☐ Post-baccalaureate PharmD
- ☐ Master of Science (MSc) in Pharmacy
- ☐ Hospital pharmacy residency (ACPR)
- ☐ Specialty residency (e.g., primary care)
- ☐ Postgraduate Fellowship
- ☐ Other, please identify _____

2. Based on the definition of pharmacist specialists provided for the purposes of this survey, do you consider yourself to be a pharmacist specialist?

- ☐ YES — formally certified
- ☐ YES — not formally certified
- ☐ No

3. Please indicate your area(s) of specialty practice (select all that apply).

- | | | |
|--|---|--|
| <input type="radio"/> Anticoagulation | <input type="radio"/> Asthma | <input type="radio"/> Ambulatory care |
| <input type="radio"/> Cardiology | <input type="radio"/> Critical care | <input type="radio"/> Diabetes |
| <input type="radio"/> Emergency medicine | <input type="radio"/> Geriatrics | <input type="radio"/> International travel |
| <input type="radio"/> Nuclear pharmacy | <input type="radio"/> Nutrition support | <input type="radio"/> Oncology |
| <input type="radio"/> Pain and palliative care | <input type="radio"/> Pediatrics | <input type="radio"/> Pharmacotherapy |
| <input type="radio"/> Primary care/family medicine | <input type="radio"/> Psychiatric | <input type="radio"/> Respiratory |
| <input type="radio"/> Smoking cessation | <input type="radio"/> Women's health | |
| <input type="radio"/> Other, please specify _____ | | |

4. Please indicate the options that best describe how you are formally recognized or certified as a pharmacist specialist.

- ☐ Board of Pharmacy Specialties (BPS) (from the USA)
- ☐ Commission for Certification in Geriatric Pharmacy (CCGP) (from the USA)
- ☐ Other independent agency or organization providing disease-specific certification, please specify: _____

5. What types of education and/or training did you undertake to support your specialty practice? (select all that apply)

- ☐ General residency
- ☐ Specialty residency
- ☐ Fellowship
- ☐ Post-Bachelor Degree
- ☐ Training/continuing education in disease state management
- ☐ Training/continuing education in patient care skills (e.g., ADAPT)
- ☐ Formal on-the-job training program
- ☐ Professional experience (e.g., informal on-the-job training)
- ☐ Other, please specify _____

Demand/Interest

6. To what extent do you agree that the following stakeholder groups support the need for pharmacist specialization in general? (Note: this does not refer to a formal certification system for specialization).

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree	Don't know
Community pharmacists	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hospital/long-term care pharmacists	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Physicians	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nurses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other health care providers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hospital/long-term care institutions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Community pharmacy employers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Academia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Government regulators	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Patients	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other, please rate then specify (below)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. Based on your experience/perspective, please indicate the top four areas of pharmacist specialization that you believe will be in greatest demand 2-3 years from now? (Select a maximum of four)

- | | | |
|--|---|--|
| <input type="radio"/> Anticoagulation | <input type="radio"/> Asthma | <input type="radio"/> Ambulatory care |
| <input type="radio"/> Cardiology | <input type="radio"/> Critical care | <input type="radio"/> Diabetes |
| <input type="radio"/> Emergency medicine | <input type="radio"/> Geriatrics | <input type="radio"/> International travel |
| <input type="radio"/> Nuclear pharmacy | <input type="radio"/> Nutrition support | <input type="radio"/> Oncology |
| <input type="radio"/> Pain and palliative care | <input type="radio"/> Pediatrics | <input type="radio"/> Pharmacotherapy |
| <input type="radio"/> Primary care / Family medicine | <input type="radio"/> Psychiatric | <input type="radio"/> Respiratory |
| <input type="radio"/> Smoking cessation | <input type="radio"/> Women's health | |
| <input type="radio"/> Other, please specify (optional) _____ | | |

8. To what extent do you agree that the following practice settings will have the greatest demand for pharmacist specialization over the next five years?

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree	Don't know
Academia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Community pharmacies — chain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Community pharmacies — independent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Specialty ambulatory care clinics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hospitals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Long term care facilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Family practice / primary care teams	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other, please rate then specify (below)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Demand/Need for Formal Recognition

9. To what extent do you agree that pharmacist specialists should be recognized through a formal certification process in order to:

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree	Don't know
a) Give pharmacists the prestige and recognition they deserve	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) Allow pharmacists in these practices to better promote their specialty services to patients or other health professionals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) Encourage more pharmacists to practice in these specialty areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) Help employers to ensure that they are hiring pharmacists who have met a certain standard level of proficiency (e.g., training and experience) in their specialty area	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e) Protect the health and safety of patients	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To what extent do you agree that ...						
	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree	Don't know
f) A process to support the certification and formal recognition of key pharmacist specialties should be available in Canada	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. Regardless of whether or not you consider yourself to be a pharmacist specialist, what are the factors that have stopped or deterred you from pursuing formal certification? (select all that apply).

- ☐ I do not require certification to practice in my specialty area
- ☐ I have chosen instead to pursue additional authorization in a specific practice area (or skill) such as prescribing authority (Alberta) or an extended practice (Manitoba)
- ☐ I do not have enough time in my schedule to become certified
- ☐ I'm not interested in becoming certified at this time
- ☐ Pharmacist specialization is not formally recognized in Canada in my practice area
- ☐ Pharmacist specialty certification is not currently available in my specialty area
- ☐ Pharmacist specialty certification it is not readily available in Canada
- ☐ Pharmacist specialty certification is not accessible for me (e.g., language, travel requirements)
- ☐ There is limited demand for specialty certification (e.g., Patients don't ask to see my credentials when I provide specialty care to them)
- ☐ My employer does not support certification (e.g., pay for studies, exam and/or certification process)
- ☐ There is no government program available in my province that would allow me to recover some of the costs of certification
- ☐ It is too expensive to obtain formal certification
- ☐ There is no funding formula for the delivery of specialty services
- ☐ There is a little support for pharmacist specialization from other health care providers
- ☐ Other, please identify: _____

11. To what extent do you agree that in the future you will:

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree	Don't know
Consider further specializing your pharmacist practice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Acquire pharmacist specialty certification from an internationally recognized body	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Have your pharmacist specialty certified if a Canadian process were introduced	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12. What are the TOP THREE factors that would influence your decision to become formally recognized or certified as a pharmacist specialist in the future?

- ☐ For formal professional recognition of advanced competence in a pharmacist specialty area
- ☐ For personal / professional growth
- ☐ If a certification process for my area of specialty were to become available
- ☐ If a certification process were to become available in Canada
- ☐ If a certification process were to become accessible for me (e.g. bilingual)
- ☐ To provide better care to my patients
- ☐ To increase my marketability as a pharmacist
- ☐ To increase acceptance of my skills among other health care professionals
- ☐ To increase my professional confidence
- ☐ To increase my financial rewards / income
- ☐ Other, please identify: _____

Process of Becoming Certified

13. How did you pay the costs/expenses to become formally recognized or certified as a pharmacist specialist?

- ☐ My employer covered the cost
- ☐ I covered the cost
- ☐ I shared the cost with my employer
- ☐ I received specific provincial professional funds such as the Health care Professionals Fund (Ontario)
- ☐ Other, please specify... _____

14a Approximately how much did you spend on your specialty certification process (including travel, time off work, education, exam, etc.)

- ☐ I personally spent: \$ _____

14b Approximately how much did your employer spend on your specialty certification process (including travel, time off work, education, exam, etc.)

- ☐ My employer spent: \$ _____

15. What were the biggest challenges you faced in becoming certified as a pharmacist specialist?

16. To what extent do you agree that the following were reasons that you pursued formal certification as a pharmacist specialist?

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree	Don't know
For formal professional recognition of advanced competence in a pharmacist specialty area	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
For personal/professional growth	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A certification process for my specialty area was available	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A certification process was accessible for me (e.g., language, travel)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To increase my marketability as a pharmacist	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To fulfill my employer's expectations of me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To increase acceptance of my skills among other health care professionals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To increase my professional confidence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To increase my financial rewards / income	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Pharmacist Specialty Certification

Currently, there is no process in place by the pharmacy profession in Canada to formally recognize or provide specialty certification to pharmacists. Certification is a process of qualifying a specialist.

17a Would you support the creation of a formal certification process for pharmacist specialization in Canada?

- ☐ Yes
- ☐ No
- ☐ Don't know

17b To what extent do you agree that pharmacist specialty certification should become mandatory if a pharmacist wants to practice in a specialty area in which formal certification is available?

- ☐ Strongly agree
- ☐ Agree
- ☐ Neither agree or disagree
- ☐ Disagree
- ☐ Strongly disagree
- ☐ Don't know

17c Why not? _____

18. To what extent do you agree that the following stakeholders groups would be supportive of the introduction of a formal certification process for pharmacist specialization in Canada?

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree	Don't know
Hospital / Long term care pharmacists	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other health care professionals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Academia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Government / public payers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Private payers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pharmacy regulators	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Community pharmacist employers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hospital pharmacist employers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Long term care pharmacist employers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Canadian public	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Community pharmacists	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other, please rate then specify (below)						

19. If it was decided that a formal certification process for pharmacist specialization was needed in Canada, to what extent do you agree that the following would be important factors of an optimal certification process?

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree	Don't know
Certification must be voluntary	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Consistent definition of the pharmacist specialty practice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Consistent recognition of the pharmacist specialty practice across Canada	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reimbursement for the specialty services provided by certified pharmacists	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Independent certification body	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A requirement for set hours of training and experience for certification	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Formal preparatory education/training requirements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recertification by written exam	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Low cost for certification	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cost covered by employers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Certification process that is available in French	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other, please rate then specify (below)

20. To what extent would you agree that the following would be benefits derived from the introduction of a formal certification process for pharmacist specialization in Canada?

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree	Don't know
Improved oversight of pharmacist specialization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Greater confidence in the knowledge and skills of the pharmacists who provide specialty services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Greater ability to meet the growing patient demand for specialized pharmacist skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Important requirement in developing collaborative practices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enhanced access to care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enhanced quality of care / patient safety / outcomes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improved ability of specialist pharmacists to promote their services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I do not see any benefits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other, please rate then specify (below)						

21. To what extent do you agree that the following are barriers to a formal pharmacist specialty certification process in Canada?

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree	Don't know
Lack of public awareness of pharmacist specialties	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of support from other health care providers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Limited perceived value in pharmacist specialty certification among employers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Costs associated with becoming certified	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Time required to become certified	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of employer support for pharmacists in becoming specialized	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of interest among pharmacists to become specialized	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of understanding among pharmacists about career paths associated with various pharmacist specialty certifications	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Limited ability to deliver specialist services in community practice settings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of reimbursement models for specialty clinical services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other, please rate then specify (below)						
<hr/>						

22. To what extent do you agree that the following are important incentives that employers could provide to support pharmacist specialist certification?

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree	Don't know
Time off to support certification studies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pay all certification costs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pay some certification costs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pay all recertification costs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pay some recertification costs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
One-time pay bonus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Salary increase	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Opportunities for promotion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Revenue sharing for billed services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other, please rate then specify (below)

23. To what extent do you agree that you'd be willing to pursue pharmacist specialist certification without direct incentives from your employer?

- ☐ Strongly agree
- ☐ Agree
- ☐ Neither agree or disagree
- ☐ Disagree
- ☐ Strongly disagree
- ☐ Don't know

Socio-Demographic Questions

24. Please indicate your age.

- ☐ 24 & under
- ☐ 25 - 34
- ☐ 35 - 44
- ☐ 45 - 54
- ☐ 55 - 64
- ☐ 65 and over
- ☐ Prefer not to answer

25. Please indicate your sex.

- ☐ Male
- ☐ Female
- ☐ Prefer not to answer

26. How long have you been licensed as a pharmacist in Canada?

- ☐ Less than 2 years
- ☐ 2 - 4 years
- ☐ 5 - 9 years
- ☐ 10 - 14 years
- ☐ 15 - 19 years
- ☐ 20 - 24 years
- ☐ 25 - 29 years
- ☐ 30 years and over

27. Please indicate the total number of years you have been practicing in pharmacy.

- ☐ Less than 2 years
- ☐ 2 years but less than 5 years
- ☐ 5 - 9 years
- ☐ 10 - 14 years
- ☐ 15 - 19 years
- ☐ 20 - 24 years
- ☐ 25 - 29 years
- ☐ 30 years and over

28. Please indicate where you are currently practicing.

- ☐ Yukon
- ☐ Northwest Territories
- ☐ Nunavut
- ☐ British Columbia
- ☐ Alberta
- ☐ Saskatchewan
- ☐ Manitoba
- ☐ Ontario
- ☐ Quebec
- ☐ New Brunswick
- ☐ Nova Scotia
- ☐ Prince Edward Island
- ☐ Newfoundland and Labrador
- ☐ United States of America
- ☐ I am not currently practicing

29. What is your current primary area of practice?

- ☐ Community pharmacy
- ☐ Community health centre
- ☐ Other community-based pharmacist practice
- ☐ Group professional practice/clinic
- ☐ Hospital and other health care facility
- ☐ Community pharmacy corporate office
- ☐ Health-related industry/manufacturing/commercial
- ☐ Corporate and consultant pharmacy
- ☐ Association / Society
- ☐ Post-secondary educational institution
- ☐ Government/para-governmental
- ☐ Other field allied to pharmacy
- ☐ Not currently employed

30. Are you a Pharmacy student?

- ☐ Yes
- ☐ No

31. Are you an international pharmacy graduate?

- ☐ Yes
- ☐ No

32. Please identify where you obtained the majority of your pharmacy education.

- ☐ Canada
- ☐ United states of America
- ☐ Other, please specify _____

33. Do you have any comments or additional feedback you would like to provide for this survey?

Thank you for completing this survey. Please provide us with your contact information below and your name will be entered into a draw for a \$100.00 Visa gift certificate.

Name: _____

E-mail: _____

EMPLOYER SURVEY

1a). Please indicate the extent of your agreement with the following statements.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree	Don't know
I anticipate that our organization will encourage pharmacists who practice in specialty areas to become formally certified (if/when a formal certification system becomes available)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I anticipate that our organization will require formal certification for pharmacists who wish to practice in specialized areas (if/when a formal certification system becomes available)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our organization currently employs pharmacist specialists	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Most of our pharmacist specialists are not formally certified	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Over the next 3-5 years, I anticipate that our organization will have an increasing demand for pharmacist specialists	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Over the next 3-5 years, I anticipate that our organization will encourage more of our pharmacists to offer specialty services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

1b) You indicated that you anticipate your organization will have increasing demand for pharmacist specialists over the next 3-5 years. Please indicate in which areas (select all that apply).

- | | | |
|--|---|--|
| <input type="radio"/> Anticoagulation | <input type="radio"/> Asthma | <input type="radio"/> Ambulatory care |
| <input type="radio"/> Cardiology | <input type="radio"/> Critical care | <input type="radio"/> Diabetes |
| <input type="radio"/> Emergency medicine | <input type="radio"/> Geriatrics | <input type="radio"/> International travel |
| <input type="radio"/> Nuclear pharmacy | <input type="radio"/> Nutrition support | <input type="radio"/> Oncology |
| <input type="radio"/> Pain and palliative care | <input type="radio"/> Pediatrics | <input type="radio"/> Pharmacotherapy |
| <input type="radio"/> Primary care/family medicine | <input type="radio"/> Psychiatric | <input type="radio"/> Respiratory |
| <input type="radio"/> Smoking cessation | <input type="radio"/> Women's health | |
| <input type="radio"/> Other, please specify _____ | | |

2. To what extent do you agree that the following stakeholder groups support the need for pharmacist specialization in general? (Note: This does not refer to a formal certification system for specialization).

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree	Don't know
Community pharmacists	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hospital / long-term care pharmacists	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Physicians	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nurses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other health care providers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hospital/long-term care institutions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Community pharmacy employers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Academia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Government regulators	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Patients	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other, please rate then specify (below)						

3. Based on your experience/perspective, please indicate the top four areas of pharmacist specialization that you believe will be in greatest demand 2-3 years from now? (Select a maximum of four)

- | | | |
|--|---|--|
| <input type="radio"/> Anticoagulation | <input type="radio"/> Asthma | <input type="radio"/> Ambulatory care |
| <input type="radio"/> Cardiology | <input type="radio"/> Critical care | <input type="radio"/> Diabetes |
| <input type="radio"/> Emergency medicine | <input type="radio"/> Geriatrics | <input type="radio"/> International travel |
| <input type="radio"/> Nuclear pharmacy | <input type="radio"/> Nutrition support | <input type="radio"/> Oncology |
| <input type="radio"/> Pain and palliative care | <input type="radio"/> Pediatrics | <input type="radio"/> Pharmacotherapy |
| <input type="radio"/> Primary care / Family medicine | <input type="radio"/> Psychiatric | <input type="radio"/> Respiratory |
| <input type="radio"/> Smoking cessation | <input type="radio"/> Women's health | |
| <input type="radio"/> Other, please specify (optional) _____ | | |

4. To what extent do you agree that the following practice settings will have high demand for pharmacist specialization over the next five years?

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree	Don't know
Academia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Community pharmacies - chain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Community pharmacies - independent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Specialty ambulatory care clinics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hospitals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Long term care facilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Family practice / primary care teams	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other, please rate then specify (below)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Currently, there is no process in place by the pharmacy profession in Canada to formally recognize or provide specialty certification to pharmacists. Certification is a process of qualifying a specialist.

5. To what extent do you agree that pharmacist specialists should be recognized through a formal certification process in order to:

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree	Don't know
a) Give pharmacists the prestige and recognition they deserve	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) Allow pharmacists in these practices to better promote their specialty services to patients or other health professionals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) Encourage more pharmacists to practice in these specialty areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) Help employers to ensure that they are hiring pharmacists who have met a certain standard level of proficiency (e.g., training and experience) in their specialty area	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e) Protect the health and safety of patients	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. To what extent do you agree that ...

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree	Don't know
f) A process to support the certification and formal recognition of key pharmacist specialties should be available in Canada	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. To what extent do you agree that the following would be broader benefits derived from the introduction of a formal certification process for pharmacist specialization in Canada?

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree	Don't know
Improved oversight of pharmacist specialization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Greater confidence in the knowledge and skills of the pharmacists who provide specialty services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Greater ability to meet the growing patient demand for specialized pharmacist skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Important requirement in developing collaborative practices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enhanced access to care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enhanced quality of care / patient safety / outcomes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improved ability of specialist pharmacists to promote their services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I do not see any benefits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other, please rate then specify (below)	<hr/>					

7. To what extent do you agree that the following would be benefits to your organization from employing formally-certified pharmacist specialists?

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree	Don't know
Better ability to meet demand for pharmacist services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Expansion of services we can offer to our customers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Expansion of services that will attract new clients	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improved ability to compete with our competitors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased opportunities to work in collaborative teams	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enhance pharmacist patient care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased job satisfaction among our pharmacists	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Greater ability to retain our pharmacists	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There are no potential benefits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other, please rate then specify (below)						

8a). Would you support the creation of a formal certification process for pharmacist specialization in Canada?

☐ Yes ☐ No ☐ Don't know

8b). To what extent do you agree that pharmacist specialty certification should become mandatory if a pharmacist wants to practice in a specialty area in which formal certification is available?

- ☐ Strongly agree
- ☐ Agree
- ☐ Neither agree or disagree
- ☐ Disagree
- ☐ Strongly disagree
- ☐ Don't know

8c). Why not? _____

9. If it was decided that a formal certification process for pharmacist specialization was needed in Canada, to what extent do you agree that the following would be important factors of an optimal certification process?

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree	Don't know
Certification must be voluntary	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Consistent definition of the pharmacist specialty practice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Consistent recognition of the pharmacist specialty practice across Canada	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reimbursement for the specialty services provided by certified pharmacists	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Independent certification body	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Requirements for a set amount of hours of training and experience for certification	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Formal preparatory education/training requirements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recertification by written exam	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Low costs for certification	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cost covered by employer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Certification process that is available in French	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other, please rate then specify (below)	<input type="text"/>					

10. To what extent do you agree that the following stakeholder groups would be supportive of the introduction of a formal certification process for pharmacist specialization in Canada?

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree	Don't know
Community pharmacists	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hospital / long-term care pharmacists	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other health care professionals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Academia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Government/public payers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Private payers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pharmacy regulators	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Community pharmacy employers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hospital pharmacist employers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Long term care pharmacist employers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Canadian public	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other, please rate then specify (below)						

11. If a formal certification system for pharmacist specialization was created in Canada, to what extent might your organization provide the following incentives for pharmacists who are interested in pursuing certification?

	Highly likely	Likely	Maybe	Unlikely	Highly unlikely	Don't know
Pay all certification costs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pay all recertification costs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Time off to support certification studies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
One-time pay bonus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Salary increase	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Opportunities for promotion upon certification	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Revenue sharing for billed services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provide support for preparation courses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Support study groups	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Encourage staff pharmacists who have already been certified to provide coaching/ mentoring to those on staff going through certification process	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Incentives for expanded scope of practice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other, please rate then specify (below)						

12. To what extent do you agree that the following are barriers to a formal pharmacist specialty certification process in Canada?

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree	Don't know
Lack of public awareness of pharmacist specialties	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of support from other health care providers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Limited perceived value in pharmacist specialty certification among employers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Costs associated with becoming certified	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Time required to become certified	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of employer support for pharmacists in becoming specialized	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of interest among pharmacists to become specialized	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of understanding among pharmacists about career paths associated with various pharmacist specialty certifications	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Limited ability to deliver specialist services in community practice settings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of reimbursement models for specialty clinical services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other, please rate then specify (below)	<hr/>					

Demographics

13. Please indicate your age.

- ☐ 24 & under
- ☐ 25 - 34
- ☐ 35 - 44
- ☐ 45 - 54
- ☐ 55 - 64
- ☐ 65 and over
- ☐ Prefer not to answer

14. Please indicate your sex.

- ☐ Male
- ☐ Female
- ☐ Prefer not to answer

15. Please indicate where you are currently practicing.

- ☐ Yukon
- ☐ Northwest Territories
- ☐ Nunavut
- ☐ British Columbia
- ☐ Alberta
- ☐ Saskatchewan
- ☐ Manitoba
- ☐ Ontario
- ☐ Quebec
- ☐ New Brunswick
- ☐ Nova Scotia
- ☐ Prince Edward Island
- ☐ Newfoundland and Labrador
- ☐ United States of America
- ☐ I am not currently practicing

16. Please indicate the type of organization/position that you represent.

- ☐ Collaborative Care Team / Family Health Team
- ☐ Community Pharmacy (Chain)
- ☐ Community Pharmacy (Independent)
- ☐ Consulting
- ☐ Corporate / Industry / Association
- ☐ Government / Para-governmental
- ☐ Hospital pharmacy
- ☐ Post-secondary educational institution
- ☐ Other, please specify _____

17. Please indicate the number of pharmacists employed at your site / store.

- ☐ 0 - 4
- ☐ 5 - 19
- ☐ 20 - 49
- ☐ 50 - 99
- ☐ 100 - 299
- ☐ 300 - 499
- ☐ 500 or more
- ☐ Not applicable

18. Please indicate the number of pharmacists employed by your corporate entity.

- ☐ 0 - 4
- ☐ 5 - 19
- ☐ 20 - 49
- ☐ 50 - 99
- ☐ 100 - 299
- ☐ 300 - 499
- ☐ 500 or more

19. Do you have any comments or additional feedback you would like to provide for this survey?

Thank you for taking the time to complete this survey!

Please click on the “Submit” button below if you are ready to submit your responses.

FOR MORE INFORMATION

FOR MORE INFORMATION ON THE BLUEPRINT FOR PHARMACY CONTACT:

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