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Le Certificat de compétence additionnelle en médecine familiale : une enquête descriptive sur le point de vue des médecins de famille sur les pratiques d'amélioration des compétences au Canada

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Article abstract

Introduction: The College of Family Physicians of Canada (CFPC) offers the Certificate of Added Competence (CAC) program to designate a family physician with enhanced skills. In 2015, the College expanded its program to introduce enhanced certification in four new domains: Palliative Care, Care of the Elderly, Sports and Exercise Medicine, and Family Practice Anesthesia. In this study, we elicited perceptions from Canadian family physicians with and without the CAC on practice impacts associated with the program.

Methods: Active family physicians in Canada with and without CACs were surveyed between November 2019 to January 2020. Descriptive statistics were generated to describe the perceptions of family physicians regarding the CAC program and its impacts on practice.

Results: Respondents agreed with several benefits of the program including enhancing the capacity to deliver comprehensive care, alleviating the burden of patient travel by increasing the availability of care in rural and remote communities, and providing opportunities to engage in various collaborative care models and new leadership roles. All respondents perceived CAC holders to pursue the certificate to meet both professional interests and community needs.

Conclusions: There is a need for strong and continued investment in systemic practice improvements that incentivize the delivery of comprehensive family medicine practice.

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The Certificate of Added Competence credentialling program in family medicine: a descriptive survey of the family physician perspective of enhanced skill practices in Canada Le Certificat de compétence additionnelle en médecine familiale : une enquête descriptive sur le point de vue des médecins de famille sur les pratiques d'amélioration des compétences au Canada

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Abstract

Introduction: The College of Family Physicians of Canada (CFPC) offers the Certificate of Added Competence (CAC) program to designate a family physician with enhanced skills. In 2015, the College expanded its program to introduce enhanced certification in four new domains: Palliative Care, Care of the Elderly, Sports and Exercise Medicine, and Family Practice Anesthesia. In this study, we elicited perceptions from Canadian family physicians with and without the CAC on practice impacts associated with the program.

Methods: Active family physicians in Canada with and without CACs were surveyed between November 2019 to January 2020. Descriptive statistics were generated to describe the perceptions of family physicians regarding the CAC program and its impacts on practice.

Results: Respondents agreed with several benefits of the program including enhancing the capacity to deliver comprehensive care, alleviating the burden of patient travel by increasing the availability of care in rural and remote communities, and providing opportunities to engage in various collaborative care models and new leadership roles. All respondents perceived CAC holders to pursue the certificate to meet both professional interests and community needs.

Conclusions: There is a need for strong and continued investment in systemic practice improvements that incentivize the delivery of comprehensive family medicine practice.

Résumé

Introduction : Le certificat de compétence additionnelle (CCA) accordé par le Collège des médecins de famille du Canada (CMFC) vise à reconnaître un haut niveau de compétences chez un médecin de famille. En 2015, le Collège a élargi le titre de compétences additionnelles à quatre nouveaux domaines : soins palliatifs, soins aux personnes âgées, médecine du sport et de l'exercice, et anesthésie en médecine familiale. Dans cette étude, nous avons recueilli les perceptions de médecins de famille titulaires et non titulaires d'un CCA sur l'influence de pratiques associées au programme de certification.

Méthodes : Des médecins de famille actifs au Canada, titulaires et non titulaires du CCA, ont été interrogés entre novembre 2019 et janvier 2020. Des statistiques descriptives ont été générées pour décrire leurs perceptions concernant le Certificat et ses impacts sur la pratique.

Résultats : Les répondants s'entendaient pour reconnaître au CCA plusieurs avantages, notamment le fait d'améliorer la capacité des médecins à fournir des soins complets, de leur offrir la possibilité de s'engager dans divers modèles de soins collaboratifs et de nouveaux rôles de leadership, et d'alléger le fardeau des déplacements des patients en augmentant la disponibilité des soins dans les populations rurales et éloignées. Tous les répondants estiment que les médecins recherchent l'obtention de ce titre de compétence pour répondre à la fois à leurs intérêts professionnels et aux besoins de la collectivité.

Conclusions : Il faut investir de manière importante et continue dans des améliorations systémiques qui favoriseront une pratique holistique de la médecine familiale.

Introduction

As the country's professional home for family physicians, the College of Family Physicians of Canada (CFPC, "The College") encourages a primary healthcare system that is accessible, high-quality, comprehensive, and continuous.¹ Given that there is significant heterogeneity in the scope of practice of family physicians across the country,² the College recognizes an opportunity to support this vision by promoting collaborative relationships that leverage the strengths of individual family physicians.^{3,4} Indeed, the benefits of collaborative team-based care were enumerated within the results of the College's recent Outcomes of Training Project and are emphasized strongly as desired outcomes of their subsequent plan for curricular expansion in post-graduate family medicine training,⁵ as well as within their professional profile for family physicians.⁶ In this regard, it is notable that some family physicians provide full-scope, generalist care to patients, while others focus some or all of their practice in certain domains of care.⁷ These latter practitioners are often enhanced skill (ES) physicians, individuals who have developed advanced competence in a domain of care that falls outside the typical family medicine scope (e.g., anesthesia) or that reflects specialized advances in traditional aspects of primary care (e.g., addictions medicine). While there are numerous ways to designate a family physician as an enhanced skilled practitioner, the College offers its own credential: The Certificate of Added Competence (CAC).⁸ The history of the College designation for added competence began in 1982 with the establishment of the CAC in Emergency Medicine (EM). In 2015, a time-limited application was opened for the physicians who had previously acquired competence, either through residency training or through practice experience and professional development, in four new domains of care: Palliative Care (PC), Care of the Elderly (COE), Family Practice Anesthesia (FPA), and Sport and Exercise Medicine (SEM). Subsequent to these, certificates in Addictions Medicine (AM), Obstetrical Surgical Skills (OSS), and Enhanced Surgical Skills (ESS) have been established and awarded. In August 2021, the College shared with the research team that it had awarded 6,045 CACs (EM = 3,842; PC = 617; COE = 425; FPA = 430; SEM = 360; AM = 292; OSS = 53; ESS = 26).

With respect to the delivery of high quality, comprehensive community adaptive care, family physicians with CACs work to extend the services they provide to their own patients and/or in conjunction with generalist family

physicians to bring specific expertise where it otherwise might not be accessible.^{9,10} Indeed, when these enhanced skill physicians ground their practice in the needs of the local community and work in collaboration with other healthcare providers, numerous benefits to comprehensive care are realized within that community: patients need to travel less distance for specialized care, community physicians are afforded an important resource for navigating specific healthcare needs, and the continuity of care between patients and their primary physicians is protected.⁷ However, along with these benefits, come concerns that the certificates are also promoting unintended practice behaviours. In particular, the CACs might be encouraging new family medicine practitioners to move away from comprehensive, community-adaptive care and a practice philosophy founded on generalist principles towards practices with an increased focus on specialization.¹¹⁻¹⁵

Through a recent multiple-case case study,⁷ we affirmed that the four CACs introduced in 2015 (i.e., PC, SEM, COE, FPA) are working to move primary care family medicine in the country both *towards* and *away from* comprehensive, continuous forms of practice. This previous qualitative work involved document review and interviews with enhanced skill and generalist physicians, trainees, and administrators associated with six family medicine practices across Canada (representing geographical, population, and practice arrangement diversity), and gave way to a description of the factors that influence how family physicians operationalize the certificates and/or work with those who hold them. These included the prevailing community need, formal privileging and practice requirements, remuneration structure, community culture and practice norms, and individual aspirations. Notably, our findings also identified that CAC holders interact with other practitioners via one of four collaborative models, each of which brings distinct benefits to comprehensive care: an enhanced scope of services model, a shared-care model, a family physician-aligned transfer of care model, and a specialist-aligned transfer of care model.⁷

Upon completion of the initial multiple case study, we engaged in focused analyses of the data in order to develop descriptions of what motivates family physicians and family medicine residents to pursue a CAC¹⁶ and unique experiences within certain disciplines including Sports and Exercise Medicine,¹⁷ Emergency Medicine,¹⁸ Palliative Care¹⁹ and Care of the Elderly.²⁰ This work highlighted that the individual's perceptions of community need and their

desire to build a practice scope that matches their personal and professional preferences intersect to promote (or dissuade) pursuit of the credential. Family physicians and family medicine trainees pursue the credential to meet community healthcare needs, limit or stimulate diversity in practice, secure perceived professional benefits, and/or validate their sense of expertise. Secondary analysis also highlighted that family physicians face barriers to engaging in enhanced skill training once their practice is established.¹⁶

While we believe that the original and secondary analyses of our multiple case study data approach were adequately powered and resulted in conceptual propositions that are widely relevant, we acknowledge that our understanding of the impacts, motivations, and barriers associated with the CAC credentials introduced in 2015 could be strengthened through the collection of data pertaining to a wider sample of family physicians. Accordingly, we undertook a broad survey of family physicians in Canada. The purpose of this survey was to validate the descriptions of impact and motivation generated via our qualitative case study from a larger sample of Canadian family physicians. Further to these aims, the survey was also developed to elicit data that improves our understanding of the degree to which the perceptions about the practices of family physicians with and without the CAC that were yielded in our qualitative work are consistent with the experiences of family physicians across the country.

Methods

Survey development and design

Guided by the seven-step process to questionnaire development for educational research,²¹ we constructed our survey based on the outcomes of our previous work.^{7,16} The survey was created in collaboration with family physicians with and without CACs, members of the CFPC Academic Family Medicine unit, and medical education experts who validated, *prima facie*, that the items were clearly expressed, meaningful for the intended population, relevant to credentialing education and policy, and likely to be interpreted in a manner consistent with the thematic descriptions generated from the previous work.

The survey was comprised of four distinct sections that posed questions about features of personal and professional identity, practice type and location, and training experiences. The survey also queried respondents with respect to propositions on their general perceptions of the impacts of the CAC program, their perceptions about

the specific ways in which CAC holders organize their activities collaboratively with other physicians. Respondents who identified as CAC holders were also asked about the outcomes they have experienced as a consequence of obtaining the certificate. We formatted survey items for either fixed-choice, multiple-choice, free text, and 7-point Likert scale (1 = strongly disagree, 3 = disagree, 5 = agree, and 7 = strongly agree) responses. We used LimeSurvey, an open-source online survey web application (Limesurvey GmbH, Germany), to build the survey and collect responses. The full survey (EN and FR) is available as Appendix A.

Participants

We circulated the survey in both English and French from November 2019 to January 2020. The CFPC facilitated survey administration to active family physicians across Canada who had agreed to be contacted by the College for research purposes ($N = 23,916$; 20,719 English-speaking and 3,197 French-speaking) with the goal of gathering as many responses as possible. At the time of survey circulation, 346 certificates had been awarded in COE, 544 in PC, 385 in FPA, 322 in SEM, 3,643 in EM, and 268 in AM. It was not possible to determine the number of CAC holders in the population of 23,916 family physicians contacted to complete the survey. Eligible participants were sent a reminder to complete the survey in December 2019. The survey was not distributed to CFPC members who were not practicing independent family physicians (e.g., residents, researchers, nurses).

Ethics

Ethics approval was obtained through the Hamilton Integrated Research Ethics Board (#5151) and participants provided informed consent prior to responding to the survey.

Data analysis

Descriptive statistics in the form of percentages, proportions, or frequency counts were generated to present the survey's findings. Specifically, the questions of certificate impact posed only to CAC holders were addressed by way of fixed choice "yes" or "no" answers. Responses garnered from family physicians with and without CACs to questions about general perceptions of the CAC program and the collaborative organization of CAC holders are presented as means (and standard deviations). For the most part, survey questions elicited responses regarding perceptions of the 2015 suite of CACs (PC, FPA, COE, SEM); however, where questions prompted reflection

on CAC holders' experiences, the results provide a presentation of findings pertaining to all respondents including other certificate holders, ES physicians, and generalist physicians. Given our objective was to affirm the descriptions of impact and motivation associated with the CAC program elicited from our multiple case study, the methods (and, in turn, results) presented here are descriptive in a manner aligned with our previous work. Those interested in inferential between-group comparisons that attend to other potential research questions associated with the resulting survey data may refer to the commissioned report presented to the CFPC in March 2020 entitled "*Understanding the Impact of the CFPC Certificates of Added Competence*."²² This publicly available document includes several appendices that present analyses of relationships between CAC designations and responses pertaining to practice features and perceptions of impact.

Results

Participants

A total of 1,525 individuals completed the survey, indicating an overall response rate of 6.38%.

With respect to practitioner type, 647 were general family physicians, 278 were enhanced skill physicians without a CAC and 600 had a CAC. Amongst the CAC holders, 560 had one CAC, 37 had two CACs and three had three CACs. Therefore, 643 certificates were represented by these 600 participants. The survey was structured so that the unit of analysis was each individual member of the CFPC, and not awarded certificates. Accordingly, it was necessary to label each participant as a particular type of physician: a CAC holder in a particular domain, an ES family physician, or a generalist family physician. This process required us to make decisions about the label assigned to those individuals with multiple certificates. Considerable heterogeneity in the combination of multiple certificates made it difficult to classify a meaningful group of multiple CAC holders. As such, for those physicians with two or more CACs, we simply assigned the label associated with the certificate relevant to our original study (PC, COE, FPA, or SEM). In cases where the physician held multiple CACs of interest to the original study, we assigned the label associated with the CAC they listed first in the survey. This coding process reduced the number of CACs reflected in the survey data from 643 to 600 – equivalent to the number of respondents - with most of the removed

certificates being associated with the Emergency Medicine ($n = 28$) and Addictions Medicine ($n = 6$) designations. This sample population of certificate holders was representative of 11.7% of all certificates awarded in Canada.

Of the total number of respondents, 757 (49.6%) were women, 731 (47.9%) were men, 2 (0.1%) identified as non-binary, and 35 (2.2%) preferred not to report gender (Table 1). There were 1,219 (79.9%) Canadian Medical Graduates (CMG), 289 (18.95%) International Medical Graduates (IMG), and 17 (1.1%) did not identify themselves as either in our sample. The average age of participants was 48.9 (± 12.1) years and the average number of years in practice was 17.0 (± 11.9) years. There were 1,401 (91.9%) respondents that identified English as their primary language, and 124 (8.1%) that identified French.

With respect to CACs held, 106 CAC holders were in PC (19.5% of all PC certificate holders), 66 COE (20.2%), 77 SEM (24.5%), and 76 had FPA (20.0%) certificates. The remaining 309 certificates indicated by respondents were either in the domains of Emergency Medicine (267; 7.3%) or Addictions Medicine (42; 15.7%). Among the CAC respondents, 274 indicated that their certificate was required for privileging.

Perceptions of care delivery

CAC holders in each domain are perceived to work in different types of care models in collaboration with other physicians in the community. Physicians with certificates in PC, COE, and SEM are perceived to most often work in a shared-care model described in the survey as occurring when "*the enhanced skilled physician works with the referring family physician*" and does not act as the most responsible physician (Table 2). Respondents generally agree that FPA-CACs work in family medicine-aligned transfer-of-care model where the CAC holder "*takes over the care of the patient from the referring family physician*." These CAC holders are also less frequently perceived as working in a shared care model.

Table 1. Personal and professional demographic features of survey participants in each physician type

	PC	COE	FPA	SEM	EM	AM	ES FP	GEN
Total Number	106	66	76	77	239	36	278	647
Age (years)	49.9 (11.7)	50.0 (13.5)	47.6 (10.8)	50.0 (11.7)	46.2 (10.8)	51.2 (10.6)	50.6 (12.5)	48.7 (12.4)
Survey Language								
French	8	8	2	3	13	6	28	56
English	98	58	74	74	226	30	250	591
Gender								
Woman	61	36	19	35	87	18	144	357
Man	42	25	54	42	146	18	131	273
Non-Binary	1	0	0	0	0	0	1	0
Prefer Not to Answer	2	5	3	0	6	0	2	17
Residency Status								
CMG	92	55	61	69	223	30	195	494
IMG	14	11	15	7	15	5	80	142
Years in CCFP Practice	17.4 (11.0)	18.6 (12.1)	15.9 (10.9)	19.1 (11.3)	16.5 (10.5)	21.2 (9.2)	17.5 (12.4)	16.3 (12.4)
Province/Territory								
Newfoundland	1	2	0	0	4	0	3	29
Prince Edward Island	2	0	0	0	2	0	1	3
Nova Scotia	9	5	0	3	9	4	6	28
New Brunswick	4	2	1	1	2	0	6	18
Quebec	10	7	1	7	42	1	15	49
Ontario	41	21	32	39	99	15	134	252
Manitoba	4	4	5	3	7	2	6	28
Saskatchewan	2	0	3	0	11	0	6	31
Alberta	11	13	21	15	20	4	49	91
British Columbia	21	11	8	9	34	10	40	106
Nunavut	1	0	2	0	0	0	0	1
Northwest Territories	0	0	1	0	2	0	4	2
Yukon	0	0	1	0	1	0	1	1
Practice Region								
Urban	64	48	7	48	135	25	130	306
Suburban	17	10	10	16	50	7	57	120
Rural	22	6	54	10	45	4	74	176
Remote	2	1	4	2	5	0	8	25
Distance to Tertiary Care								
< 30min	61	45	9	57	137	28	146	344
30min-1h	16	8	15	8	47	6	45	115
1h-4h	22	7	35	8	37	2	54	139
>4h	3	4	13	4	12	0	22	33
No road access	1	0	3	0	0	0	2	1
Practice Details								
Hospital Privilege Required (%)	29.2	28.8	23.7	14.3	16.7	16.7	25.9	25.7
Family Practice Required (%)	11.3	9.1	13.2	9.1	7.1	8.3	21.9	16.1
Maintains Comprehensive Practice (%)	18.9	22.7	48.7	28.6	15.9	38.9	54.7	66.0

Table 2. Mean (SD) survey respondent agreement (out of 7) with statements about how the core CAC holders in each domain work with other physicians in their community (Survey Section 4; Questions 34-36) by physician type.

	PC	COE	SEM	FPA	All Respondents
CAC-PC holders work in a model that involves:					
Shared Care	5.7 (1.3)	5.6 (1.4)	5.7 (1.5)	5.8 (1.2)	5.3 (1.6)
Family Medicine-aligned Transfer of Care	5.1 (1.6)	5.1 (1.7)	5.7 (1.5)	5.1 (1.4)	5.1 (1.6)
Specialist-aligned Transfer of Care	4.9 (1.7)	4.4 (1.8)	5.0 (1.9)	4.9 (1.8)	4.8 (1.8)
CAC-COE holders work in a model that involves:					
Shared Care	5.6 (1.3)	5.8 (1.4)	5.9 (1.3)	5.9 (1.1)	5.3 (1.5)
Family Medicine-aligned Transfer of Care	4.9 (1.5)	4.8 (1.8)	5.2 (1.5)	5.1 (1.5)	4.7 (1.6)
Specialist-aligned Transfer of Care	4.6 (1.6)	3.9 (1.7)	4.4 (1.9)	4.6 (1.7)	4.4 (1.7)
CAC-SEM holders work in a model that involves:					
Shared Care	6.0 (1.2)	5.5 (1.7)	6.0 (1.2)	5.8 (1.3)	5.5 (1.5)
Family Medicine-aligned Transfer of Care	5.1 (1.7)	4.7 (1.8)	5.7 (1.5)	5.3 (1.5)	4.9 (1.7)
Specialist-aligned Transfer of Care	3.9 (1.7)	3.7 (1.6)	4.2 (1.9)	4.4 (1.7)	4.2 (1.7)
CAC-FPA holders work in a model that involves:					
Shared Care	5.7 (1.8)	5.3 (2.0)	5.9 (1.5)	5.9 (1.4)	5.4 (1.8)
Family Medicine-aligned Transfer of Care	5.3 (2.0)	5.0 (2.0)	6.0 (1.3)	5.8 (1.7)	5.5 (1.8)
Specialist-aligned Transfer of Care	3.9 (2.1)	3.9 (2.1)	4.4 (2.0)	4.9 (2.0)	4.6 (2.0)

Impact of CAC on professional satisfaction and wellbeing

We queried those respondents who indicated having a certificate about outcomes they experienced as a result of acquiring a CAC. These outcomes pertained to ideas of preferable practice arrangements including fulfilling practice scopes and improved remuneration structures (Appendix A, Section 2, Question 21). Of all CAC respondents, 44.0% indicated they experienced greater enjoyment in their practice due to having more expertise

and operating within a smaller scope (Table 3). Notably, this experience was realized in a greater proportion of COE-CAC holders (54.5%) than other certificate holders. Similarly, 46.0% of all CAC holders indicated experiencing increased satisfaction from practice due to spending more time in areas of practice that they found more interesting. This experience was also reported by a greater proportion of COE (54.0%) CAC holders than other CAC holders.

Table 3. Outcomes experienced by proportions of CAC holders (%) as a consequence of obtaining a CAC (Survey Section 2; Questions 21)

Outcome	PC (n = 106)	COE (n = 66)	SEM (n = 77)	FPA (n = 76)	All CAC Holders (n = 600)
Higher remuneration	17.0	6.1	9.1	23.7	17.8
Salaried fee structure	15.1	16.7	1.3	1.3	7.7
Longer appointment times with patients	23.6	37.9	24.7	1.3	13.2
Improved control over work hours	14.2	27.3	14.3	10.5	15.3
Greater enjoyment from practice due to higher acuity	28.3	28.8	18.2	36.8	40.8
Greater enjoyment from practice due to less uncertainty	19.8	21.2	14.3	10.5	22.0
Greater enjoyment from practice due to more variation	16.0	21.2	10.4	35.5	23.7
Greater enjoyment from practice due to more time spent in the parts of practice that interest you the most	43.4	53.0	41.6	40.8	46.2
Greater enjoyment from practice due to greater level of expertise within a smaller scope	45.3	54.5	42.9	27.6	44.0
New leadership roles related to your CAC (e.g., academic, administrative, political)	48.1	48.5	27.3	21.1	37.7
A partially focused practice (i.e., maintain some comprehensive practice patient load)	11.3	19.7	16.9	22.4	15.3
An entirely focused practice (i.e., do not maintain comprehensive family practice)	37.7	39.4	26.0	13.2	33.5
Increased opportunities to educate other family physicians in your community in your domain of added competence	54.7	51.5	42.9	26.3	39.7
Increased opportunities to provide consult services in your domain of added competence to other family physicians in your community	50.0	47.0	50.6	31.6	36.7
A change in professional identity	31.1	22.7	13.0	17.1	25.8
No change at all	30.2	25.8	32.5	36.8	24.8

Less than half (40.8%) of all CAC holder respondents reported experiencing greater enjoyment from practice due to having high acuity in patient presentations in their practice, and only 22% indicated that the certificate supported a practice characterized by less clinical uncertainty. With respect to professional arrangements, only 17.8% of all CAC holders reported experiencing higher remuneration and 7.7% reported being remunerated via a salaried fee structure. Obtaining a CAC afforded respondents professional development experiences outside of the clinical setting. For example, 48.5% of the COE-CAC holders reported entering new professional roles (e.g., academic, administrative, health system leadership) related to their CAC (See Table 3).

Perceptions of the CAC program and their holders

We asked generalist and CAC respondents to reflect on their personal experiences with family practice and indicate their level of agreement with statements regarding the CAC program and its certificate holders. When asked about their perception of CAC holders, participants indicated slight agreement with the statement that CAC holders are fundamentally different compared to generalist family physicians (4.5 ± 1.6 on a 7-point Likert scale (1 = strongly disagree; 7 = strongly agree)) and specialists (4.7 ± 1.6) (Table 4). Despite this, participants agreed with the statements that CAC holders take a family medicine approach in their specialized area of healthcare delivery (5.4 ± 1.5) and that prior experience in a comprehensive family practice improves the care provided by those with a CAC (5.4 ± 1.5).

Table 4. Mean (SD) survey respondent agreement with propositions concerning the Certificate of Added Competence and their holders and ANOVA analysis for specific questions of interest (Section 3, questions 5,6,7,9,10,12,25,26 and 28)

	PC	COE	SEM	FPA	GEN	All Respondents
CAC holders apply a family medicine approach to their work in an area of specialized health care delivery.	6.1 (1.1)	6.1 (1.2)	5.8 (1.3)	5.5 (1.5)	5.2 (1.5)	5.4 (1.5)
CAC holders are fundamentally different from other specialists working in the same domain of care.	4.2 (1.6)	4.8 (1.7)	4.8 (1.7)	4.7 (1.7)	4.5 (1.5)	4.5 (1.6)
CAC holders are fundamentally different from full-scope, comprehensive family physicians.	4.8 (1.7)	4.7 (1.5)	5.4 (1.5)	4.7 (1.5)	4.7 (1.6)	4.7 (1.6)
CAC holders are fundamentally different from Family Physicians who have enhanced skills training but do not hold CACs.	3.3 (1.5)	3.4 (1.4)	4.0 (1.8)	2.9 (1.4)	3.5 (1.5)	3.4 (1.6)
Prior experience in a comprehensive family medicine practice improves the care that CAC holders provide.	5.5 (1.5)	5.5 (1.6)	5.1 (1.7)	5.2 (1.4)	5.6 (1.4)	5.4 (1.5)
The CAC holder enhances the capacity of family physicians to provide comprehensive care within a community.	5.5 (1.3)	5.5 (1.7)	5.8 (1.3)	5.7 (1.4)	5.1 (1.5)	5.3 (1.5)
Collaboration with CAC holders allows comprehensive family physicians to spend more time on other aspects of patient care.	5.4 (1.2)	5.3 (1.5)	5.7 (1.3)	5.2 (1.2)	4.8 (1.5)	5.0 (1.4)
CAC holders have taken over some of the scope of practice that used to belong to comprehensive family practice.	4.2 (1.7)	3.9 (1.6)	4.3 (1.4)	4.4 (1.5)	4.6 (1.5)	4.5 (1.5)
CAC holders help maintain patient continuity with their primary family physician.	5.1 (1.3)	5.1 (1.3)	5.4 (1.1)	4.7 (1.4)	4.2 (1.4)	4.5 (1.5)
CAC holders help keep rural and remote patients within their regional communities by taking referrals that would otherwise require them to travel to a specialist outside the community.	5.6 (1.5)	5.6 (1.4)	5.8 (1.1)	6.0 (1.4)	5.4 (1.4)	5.5 (1.4)
CAC holders address specific community needs.	6.0 (1.2)	5.9 (1.2)	6.2 (1.0)	6.1 (1.3)	5.2 (1.4)	5.6 (1.3)
The CAC is becoming increasingly required for privileging.	4.5 (1.7)	3.4 (1.6)	3.3 (1.6)	4.4 (1.6)	4.3 (1.7)	4.3 (1.8)
The CAC designation promotes sub-specialization among family physicians.	5.3 (1.3)	4.9 (1.3)	5.1 (1.2)	5.1 (1.4)	5.6 (1.3)	5.4 (1.3)
The CAC designation is <u>not</u> an incentive for family physicians to pursue new enhanced skills.	3.3 (1.6)	4.0 (1.9)	3.6 (1.5)	3.8 (1.4)	3.8 (1.5)	3.6 (1.5)
CAC holders provide leadership, advocacy, and education within their domain of practice.	6.1 (1.2)	5.8 (1.3)	6.0 (1.2)	5.4 (1.2)	4.7 (1.4)	5.2 (1.4)
A CAC obtained through the residency route is a valid marker of competence within a domain of care.	5.9 (1.2)	5.7 (1.1)	5.9 (1.2)	5.7 (1.1)	5.0 (1.4)	5.3 (1.3)
A CAC obtained through the leadership route is a valid marker of competence within a domain of care.	5.2 (1.4)	4.9 (1.4)	5.5 (1.2)	5.1 (1.1)	4.9 (1.3)	5.0 (1.3)
CAC obtained through the competency verification route is a valid marker of competence within a domain of care.	5.6 (1.1)	5.1 (1.2)	5.3 (1.1)	5.4 (1.0)	5.2 (1.2)	5.3 (1.2)
CAC obtained through the challenge exam is a valid marker of competence within a domain of care.	5.2 (1.4)	4.9 (1.3)	5.2 (1.5)	5.2 (1.0)	5.0 (1.3)	5.0 (1.3)
The requirements for obtaining a CAC are clear and transparent.	4.7 (1.3)	4.8 (1.4)	4.9 (1.5)	4.9 (1.2)	4.0 (1.4)	4.3 (1.5)
The criteria for obtaining a CAC are applied consistently.	4.5 (1.4)	4.6 (1.5)	4.6 (1.5)	4.8 (1.2)	4.0 (1.3)	4.1 (1.4)
Knowledge of a physician colleague's training and reputation is a higher marker for trust and referrals than their CAC status.	5.4 (1.3)	4.9 (1.3)	4.9 (1.3)	5.2 (1.3)	5.2 (1.4)	5.1 (1.3)
Family physicians that choose to pursue a CAC do so because of community need that grows out of experience in comprehensive family practice.	4.4 (1.5)	4.9 (1.5)	4.2 (1.3)	5.4 (1.4)	3.9 (1.7)	4.1 (1.6)
Family physicians that choose to pursue a CAC do so mainly for personal-professional reasons (i.e., lifestyle, remuneration, interest, validation of expertise, privileging).	4.8 (1.4)	4.8 (1.5)	5.2 (1.1)	4.9 (1.2)	5.5 (1.3)	5.3 (1.4)
The availability of CACs devalues the expertise of family physicians who do not hold one.	2.9 (1.6)	2.5 (1.3)	2.5 (1.4)	3.1 (1.6)	4.2 (1.9)	3.6 (1.9)
CAC holders should be required to maintain their competence in full-scope, comprehensive Family Medicine.	2.8 (1.7)	3.3 (1.7)	2.7 (1.8)	3.5 (1.9)	4.5 (1.8)	3.8 (1.9)
CAC holders should have access to unique payment and fee structures that recognize and facilitate the use of their additional qualifications.	5.5 (1.4)	5.8 (1.3)	6.2 (1.3)	4.9 (1.5)	4.6 (1.5)	5.0 (1.6)
The CAC program should be cancelled.	1.8 (1.2)	1.6 (1.2)	1.9 (1.4)	2.2 (1.4)	2.9 (1.8)	2.5 (1.7)
The introduction of CACs has affected how regulatory authorities recognize or credential comprehensive family physicians.	3.8 (1.6)	3.4 (1.5)	3.4 (1.6)	4.4 (1.3)	4.6 (1.5)	4.3 (1.5)
CAC holders should apply their added competence to address local gaps in care	5.8 (1.0)	5.7 (1.1)	5.7 (1.0)	5.6 (1.0)	5.5 (1.2)	5.5 (1.2)
CAC holders should have greater access to employment opportunities within the relevant domain of care.	5.4 (1.3)	5.6 (1.2)	5.3 (1.1)	5.0 (1.2)	4.5 (1.4)	4.9 (1.4)
The CAC will inflate the minimum credentials required to practice family medicine.	3.2 (1.3)	3.0 (1.4)	2.9 (1.4)	3.4 (1.4)	4.1 (1.7)	3.7 (1.6)

Regarding practice scopes, respondents agreed with the proposition that CAC holders address specific community needs (5.6 ± 1.3) (Table 4). There was also agreement that CAC holders may have taken over some of the scope of practice that is provided by comprehensive family practices (4.5 ± 1.5). However, respondents expressed more strongly that family physicians with CACs enhance the capacity of generalist family physicians when providing comprehensive care within a community (5.3 ± 1.5). Realization of some benefits and supports were reported when working with a CAC holder including allowing generalists to spend more time on other aspects of patient care and helping maintain patient continuity with primary care physicians. Most notably, the responses suggest that CAC holders are perceived to be an important source of support for facilitating healthcare delivery for rural and remote patients. The data suggest that this is because CAC physicians take on referrals that would otherwise require patients to travel to a specialist outside the community. There was particularly strong agreement amongst FPA-CAC respondents regarding this sentiment (5.5 ± 1.4).

Survey responses did highlight some concerns regarding the certificates. Specifically, generalist family physicians reported strong levels of agreement with the idea that the certificates devalue the expertise of family physicians who do not hold one (Table 4). Generalist family physicians had similarly high levels of agreement concerning the statement: *“The CAC will inflate the minimum credentials required to practice family medicine”* (Table 4).

Respondents were equivocal about the idea that family physicians who pursue a CAC are motivated by a need to address community needs that grow out of experience in comprehensive family medicine (4.1 ± 1.6). There was a high level of agreement amongst all respondents that physicians choose to pursue a certificate because of personal and/or professional reasons (e.g., lifestyle, remuneration, interest) (5.3 ± 1.4) (Table 4).

Interpretation

This study aimed to describe the perceptions of family physicians in Canada regarding the influence of the College’s CAC program on comprehensive care delivery. While our previous work generated rich and relevant descriptions and propositions concerning the CAC program,^{7,16-20} this pan-Canadian survey allowed us to further affirm our understanding of the perceptions held by family physicians with and without CACs across the country. Our findings illustrate that family physicians with

CACs operationalize their practice in various ways with respect to the degree to which they maintain comprehensive family medicine practices, and the geographic location and distance at which they situate their practices as a function of their CAC domain. This variance in practice organization highlights that the CAC holders have different degrees of opportunity to arrange their practices in a way that addresses diverse community needs. For instance, our FPA-CAC respondents reported having rural practices to a greater degree than other CAC physicians, reflecting the greater need that rural areas have for family physician-led anesthesia services.²³

From this survey, we identified several benefits of the CAC program, which echo our previous multiple case study. Respondents reported working across various forms of collaborative care in the community, with most indicating a shared care model. In working within this arrangement, CAC holders are able to provide expertise while also allowing the referring physician to preserve a continuous therapeutic relationship with patients.⁷ In this regard, the enhanced skill allows these family physicians to act as a resource that enhances access to care within communities. For example, our survey participants indicated that those with the certificate can alleviate the travel burden associated with accessing specialist services not usually available in rural and remote communities. While our study’s CAC holders generally reported working in shared-care models, previous reports have described certain CAC holders such as SEM¹⁷ or FPA-CAC⁷ family physicians working in specialist-aligned transfer of care models. Working in this model also comes with its own benefits as it can help reduce patient wait times due to the formal relationship between the CAC holder and the specialist to whom the referring family physician transferred the care.

Notably, CAC holders are perceived by their colleagues as fundamentally different than generalists and specialists. Indeed, despite taking a family medicine approach to care delivery in their respective clinical domains, many CAC-holder respondents in our study reported not maintaining comprehensive family practices. Some reported organizing their practices in a way that aligned with personal and professional interests rather than community needs – a finding that resonates with our previous CAC-specific work.^{17,19,20} This decision was seemingly associated with greater job satisfaction related to operating within smaller and more manageable practice scopes that afford improved work-life balance.¹⁶ From this perspective, the College should be careful about the way enhanced skill

training is conceptualized as part of its current curriculum expansion project, which is specifically designed to ensure that graduating physicians are prepared to deliver comprehensive community-based care aligned with generalist principles.⁵ While the expansion will organize residency training over a longer period, this additional time should likely remain focused on educational interventions that promote greater competence and confidence with those services that make up the core of comprehensive family medicine. An approach that focuses extra time on enhanced skills training may be less effective in promoting an orientation to comprehensive practice.

There are several limitations in this study. First, we received a low volume of responses relative to the number of family physicians practicing across the country. Our approach to sampling was, of course, constrained to those College members who had agreed to be contacted for research purposes. As such, we are unable to determine the proportion of potential respondents that have a CAC. However, the response rate amongst our sample population of CAC holders is high (19.5%-24.5%). Within this variable interpretation of our sample size relative to population, we must temper our perceptions of the explanatory power of the responses. In this regard, there may be self-selection bias that yielded a larger proportion of CAC holders in our sample than may have been expected. Secondly, as is inherent to survey research, we acknowledge that respondents may be subject to recall bias. Lastly, respondents that held multiple CACs of interest were assigned a label according to the certificate they listed first. Given the nature of the study, we were not able to gain an understanding of the nuanced perspective of multi-CAC holders.

Conclusion

Many CAC holders leverage their expertise and knowledge to arrange their practices in diverse ways to meet the health needs of communities. There are many benefits to engaging in collaborative practices and reducing the barriers to accessing healthcare for underserved communities. However, this is not the case for all CAC holders. In this regard, unintended consequences associated with the certificate program were also noted. While aligning practice arrangements to personal and professional interests may be positive for CAC holders, this can present risks to the delivery of comprehensive, continuous family medicine care organized around community need. As such, it is essential that we continue

to promote practice arrangements that are grounded in the principles of family medicine. With this in mind, we encourage increased investment in health system improvements for generalist family medicine, which incentivize community-adaptive, comprehensive, continuous family medicine practice.

Contributions: LG and MV supervised, conceived, and designed all aspects of the project. IA obtained the data. LG, IA, MV, CB, and AE analyzed and interpreted the data, with contributions from AB, AF, JG, MH, MM, HYHS and XCT. AE and LG led manuscript writing. All of the authors revised the manuscript critically for important intellectual content, approved the final version to be published, and have agreed to be accountable for all aspects of the work.

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References

1. College of Family Physicians of Canada. *A new vision for Canada: family practice — the patient's medical home* 2019. Mississauga (ON): College of Family Physicians of Canada; 2019. Available from: https://patientsmedicalhome.ca/files/uploads/PMH_VISION2019_ENG_WEB_2.pdf. [Accessed on Feb 17, 2023].
2. Grierson L, Vanstone M. The rich potential for education research in family medicine and general practice. *Adv Health Sci Educ Theory Pract*. 2021 Jun;26(2):753-763. <https://doi.org/10.1007/s10459-020-10030-5>.
3. College of Family Physicians of Canada. *Family medicine professional profile*. Mississauga (ON); 2018. Available from: <https://www.cfpc.ca/CFPC/media/Resources/Education/FM-Professional-Profile.pdf>. [Accessed on Feb 17, 2023].
4. Baldwin DC Jr. Some historical notes on interdisciplinary and interprofessional education and practice in health care in the USA. *J Interprof Care*. 2007 Feb;21(1):23-37. <https://doi.org/10.1080/13561820600995553>.
5. Fowler N, Oandasan I, Wyman R, eds. *Preparing our future family physicians. An educational prescription for strengthening*

- health care in changing times*. Mississauga, ON: College of Family Physicians of Canada; 2022.
6. College of Family Physicians of Canada. *Family medicine professional profile*. Mississauga, ON: College of Family Physicians of Canada; 2018.
 7. Grierson L, Allice I, Baker A, et al. Impacts of the Certificates of Added Competence credentialling program: a qualitative case study of enhanced-skill family medicine practice across Canada. *CMAJ Open*. 2021 Oct 4;9(4):E966-E972. <https://doi.org/10.9778/cmajo.20210013>.
 8. Fowler N, Wyman R, editors. *Residency Training Profile for Family Medicine and Enhanced Skills Programs Leading to Certificates of Added Competence*. Mississauga, ON: College of Family Physicians of Canada; 2021.
 9. Goldman J, Meuser J, Rogers J, et al. Interprofessional collaboration in family health teams: an Ontario-based study. *Can Fam Physician*. 2010 Oct;56(10):e368-74.
 10. Meuser J, Bean T, Goldman J, et al. Family health teams: a new Canadian interprofessional initiative. *J Interprof Care*. 2006 Nov;20(6):436-8. <https://doi.org/10.1080/13561820600874726>
 11. Laverne MR, Goldsmith LJ, Grudniewicz A, et al. Practice patterns among early-career primary care (ECPC) physicians and workforce planning implications: protocol for a mixed methods study. *BMJ Open*. 2019 Sep 10;9(9):e030477. <https://doi.org/10.1136/bmjopen-2019-030477>.
 12. Glazier J. Specialization in family medicine education: abandoning our generalist roots. *Fam Pract Manag*. 2007 Mar;14(3):13-5. PMID: 17388627.
 13. Coutinho AJ, Cochrane A, Stelter K, Phillips RL, Peterson LE. Comparison of intended scope of practice for family medicine residents with reported scope of practice among practicing family physicians. *JAMA*. 2015 Dec 8;314(22):2364-2372. <https://doi.org/10.1001/jama.2015.13734>
 14. Dhillon P. Shifting into third GEAR: current options and controversies in third-year postgraduate family medicine programs in Canada. *Can Fam Physician*. 2013 Jul;59(7):e406-12.
 15. Shepherd LG, Burden JK. A survey of one CCFP-EM program's graduates: their background, intended type of practice and actual practice. *Can J Emerg Med*. 2005;7: 315-320. <https://doi.org/10.1017/S1481803500014500>
 16. Grierson L, Allice I, Tong XC, et al. Motivations for pursuing enhanced skill credentials in family medicine: a study of the Certificates of Added Competence in Canada. *Fam Med*. 2022;54(6):431-7. <https://doi.org/10.22454/FamMed.2022.213612>
 17. Thornton JS, Grierson L, Vanstone M, et al. A win-win for sport and exercise medicine and primary care: a qualitative case study of the added competence model in Canada. *J Sports Med*. 2022;1-7. <https://doi.org/10.1007/s40279-022-01663-6>
 18. Tong XC, Hanel E, Mahmud M, Allice I, Vanstone M, Grierson L. The CFPC certificate of added competence (CAC) in emergency medicine: reflections from current research on the CAC program. *CJEM*. 2022;1-3. <https://doi.org/10.1007/s43678-022-00302-3>
 19. Howard M, Fikree S, Allice I, et al. Family physicians with certificates of added competence in palliative care contribute to comprehensive care in their communities: a qualitative descriptive study. *Pall Med Rep*. 2023;4:1, 28–35, <https://doi.org/10.1089/pmr.2022.0057>.
 20. Correia RH, Grierson L, Allice I, et al. The impact of care of the elderly certificates of added competence on family physician practice: results from a pan-Canadian multiple case study. *BMC Geriatr*. 2022;22:840. <https://doi.org/10.1186/s12877-022-03523-4>
 21. Artino AR Jr, La Rochelle JS, Dezee KJ, Gehlbach H. Developing questionnaires for educational research: AMEE Guide No. 87. *Med Teach*. 2014 Jun;36(6):463-74. <https://doi.org/10.3109/0142159X.2014.889814>
 22. Grierson L, Vanstone M, Allice I. Understanding the Impact of the CFPC Certificates of Added Competence. College of Family Physicians of Canada. 2020. Available from: <https://www.cfpc.ca/CFPC/media/PDF/2020-04-CAC-Impact-Study-Report.pdf>. [Accessed on Jun 28, 2023].
 23. Orser BA, Chen R, Wang J, et al. *Improving access to safe anesthetic care in rural and remote communities in affluent countries*. Toronto (ON): University of Toronto; 2019. <https://doi.org/10.1097/01.aoa.0000603632.75640.94>

Appendix A. CAC Survey (English and French)

***Each page: You can skip any question you do not want to answer. You can also submit your incomplete survey by clicking the "**Next**" button to the end of the survey and then click the "**Submit**" button. If you wish to stop and do not want your survey data to be recorded, you can exit the study by closing your browser or clicking on the "Exit and clear survey" button at any point.

Section 1

1. Year of Birth (Write in or select from option list; answer should be 4 digits, for example, 1984)
2. Gender (Select from following options):
 - a. Woman
 - b. Man
 - c. Non-Binary
 - d. Prefer not to answer
3. Are you a Canadian Medical Graduate or International Medical Graduate? (Select one):
 - a. Canadian Medical Graduate
 - b. International Medical Graduate

Please indicate the year in which you were certified to practice Family Medicine by the College of Family Physicians of Canada. (Write in/Select from list)

4. Have you completed or been previously enrolled in a RCPSC Residency Program? (Y/N)

If yes, which one:

5. Please indicate whether you have other Health Professions Education training (Select from the list).
6. Do you hold any Certificates of Added Competence? (Y/N)

If yes

- In which domain of care? (Select from list (PC, COE, SEM, FPA, EM, AM, (+ option to specify another CAC, if participant has more than one)

For each domain of care

- By which route was it obtained? (Select from list (Leadership Route; Residency Route; Competency Verification Route; Challenge Exam)
- Is it currently required for your relevant privileges to practice?
- In what year did you obtain this CAC? (Write In)
- Did you use any Return to Training supports to obtain the required training for your CAC? (Y/N)

If yes

- What kind of supports did you access? (Select all that apply (tuition coverage, financial assistance to cover practice-associated costs, assistance finding locum, financial assistance to cover costs of living, other (write in))

7. Do you have any formal Enhanced Skill Training without a CAC? (Y/N)

If yes

- In which domain(s) of care? (Write In)
- What is the relevant certificate or diploma? (Write In)
- Where did you receive the relevant training? (Write In)
- What year did you complete this training? (Write In)
- Did you use any return to training supports to obtain this training? (Y/N)

If yes

- What kind of supports did you access? (Select all that apply (tuition coverage, financial assistance to cover practice-associated costs, assistance finding locum, other (write in))

Section 2

The following questions ask you to describe your **practice and** refer to your community as you perceive it.

Please note, a **Comprehensive Family Physician** is understood as one that offers continuing care to a defined group of patients across the life cycle and in a variety of settings.

In answering these questions, please consider all facets of your practice:

8. In what Province/Territory do you practice? (Select from list; include YK, NVT, and NWT)
9. Is your community urban, suburban, rural, or remote? (Select one)
10. Does your community have a general hospital, with an emergency room, and fewer than 100 beds? (Y/N)
11. Does your community have a general hospital, with an emergency room, and 100 beds or more? (Y/N)
12. What is the distance by car to the nearest tertiary-care hospital for specialist and sub-specialist care for patients with life-threatening illnesses and/or unstable vitals? (Select from list (more than 4 hours, 1-4 hours, 30min – 1hour, less than 30 minutes)
13. What type of practice do you have (select all that apply)? (Select from the list below)
 - Office-based practice (Group)
 - Office-based practice (Solo)
 - Hospital-based
 - Long term care facility
 - Academic centre
 - Mainly consists of locums
 - Walk-in clinic
 - Specialized clinic (for e.g., sports med, geriatrics clinic, chronic pain, etc.)
 - Other
14. Is there a requirement to maintain hospital privileges in order to practice family medicine in your community? (Y/N)
15. Is there a requirement to maintain a comprehensive family practice to a defined group of patients in order to practice in your community? (Y/N)

16. Do you currently maintain a comprehensive family practice? (Y/N)

If yes

- How many days/weeks are you in clinic? (Write In)
- Approximately how many patients are in your practice? (Write in)

If no

17. Have you ever previously had a comprehensive family practice? (Y/N)

If Yes

- For how many years? (Write In)
- Approximately how many patients were in your practice (write in)

18. Do you work alongside other CAC holders in your practice? (Y/N/Unsure)

If yes

- In which domains? (Select from list (PC, SEM, COE, FPA, EM, AM))

19. Do you refer patients to other CAC holders (Y/N)

If yes

- In which domains? (Select from list (PC, SEM, COE, FPA, EM, AM))

20. How are you paid (pick more than one option if blended)? (Select from following list)

- Fee for Service
- Salary
- Capitation
- Other (include option to specify other)

If Answer to Q6 was yes, then these questions are available here

21. As a consequence of obtaining a CAC, have you experienced any of the following? Check all that apply:

- Higher remuneration
- Salaried fee structure
- Longer appointment times with patients
- Improved control over work hours
- Greater enjoyment from practice due to higher acuity
- Greater enjoyment from practice due to less uncertainty
- Greater enjoyment from practice due to more variation
- Greater enjoyment from practice due to more time spent in the parts of Family Medicine that interest you the most
- Greater enjoyment from practice due to greater level of expertise within a smaller scope.
- New leadership roles related to your CAC (e.g., academic, administrative, political)

- A partially focused practice (i.e., maintain some comprehensive practice patient load)
- An entirely focused practice (i.e., do not maintain comprehensive family practice)
- Increased opportunities to educate other family physicians in your community in your domain of added competence
- Increased opportunities to provide consult services in your domain of added competence to other family physicians in your community
- A change in professional identity
- No change at all
- Other:

Section 3

The following questions ask you to indicate your level of agreement with a series of statements concerning the Certificate of Added Competence and their holders.

In answering these questions, please reflect on your personal experiences.

*****The following questions should all be answered on a 7-pt Likert scale w. 1 as Strongly Disagree, 3 as Disagree, 5 as Agree, and 7 as Strongly Agree) *****

1. CAC holders apply a family medicine approach to their work in an area of specialized health care delivery.
2. CAC holders are fundamentally different from other specialists working in the same domain of care.
3. CAC holders are fundamentally different from full-scope, comprehensive family physicians.
4. CAC holders are fundamentally different from Family Physicians who have enhanced skills training but do not hold CACs.
5. Prior experience in a comprehensive family medicine practice improves the care that CAC holders provide.
6. The CAC holder enhances the capacity of family physicians to provide comprehensive care within a community.
7. Collaboration with CAC holders allows full-scope comprehensive family physicians to spend more time on other aspects of patient care.
8. CAC holders have taken over some of the scope of practice that used to belong to comprehensive family practice.
9. CAC holders help maintain patient continuity with their primary family physician.
10. CAC holders help keep rural and remote patients within their regional communities by taking referrals that would otherwise require them to travel to a specialist outside the community.
11. CAC holders address specific community needs.
12. The CAC is becoming increasingly required for privileging.
13. The CAC designation promotes sub-specialization among family physicians.
14. The CAC designation is not an incentive for family physicians to pursue new enhanced skills.
15. CAC holders provide leadership, advocacy, and education within their domain of practice.
16. A CAC obtained through the residency route is a valid marker of competence within a domain of care.
17. A CAC obtained through the leadership route is a valid marker of competence within a domain of care.
18. CAC obtained through the competency verification route is a valid marker of competence within a domain of care.
19. CAC obtained through the challenge exam is a valid marker of competence within a domain of care.
20. The requirements for obtaining a CAC are clear and transparent.
21. The criteria for obtaining a CAC are applied consistently.
22. Knowledge of a physician colleague's training and reputation is a higher marker for trust and referrals than their CAC status.
23. Family physicians that choose to pursue a CAC do so because of community need that grows out of experience in comprehensive family practice.

24. Family physicians that choose to pursue a CAC do so mainly for personal-professional reasons (i.e., lifestyle, remuneration, interest, validation of expertise, privileging).
25. The availability of CACs devalues the expertise of family physicians who do not hold one.

In thinking about where the CAC program may go in the future:

26. CAC holders should be required to maintain their competence in full-scope, comprehensive Family Medicine.
27. CAC holders should have access to unique payment and fee structures that recognize and facilitate the use of their additional qualifications.
28. The CAC program should be cancelled.
29. The introduction of CACs has affected how regulatory authorities recognize or credential comprehensive family physicians.
30. CAC holders should apply their added competence to address local gaps in care
31. CAC holders should have greater access to employment opportunities within the relevant domain of care.
32. The CAC will inflate the minimum credentials required to practice family medicine.
33. What areas of care do you feel would benefit from a CAC? (Write In)

Section 4

The following questions ask you to indicate your level of agreement with statements about how CAC holders in each domain work with other physicians in their community.

In answering these questions, please reflect on your personal experiences.

*****The following questions should all be answered on a 7-pt Likert scale w. 1 as Strongly Disagree, 3 as Disagree, 5 as agree, and 7 as Strongly Agree) *****

34. CAC holders work in a model wherein they provide patient care or advice to the referring physician without breaking the patient's continuity with the primary family physician. Consider for each of the following domains.

	1	2	3	4	5	6	7
PC							
SEM							
COE							
FPA							

35. CAC holders work in a model that involves the transfer of patient care from the primary family physician to the CAC holder for a period of time and/or a specific issue. Consider for each of the following domains.

	1	2	3	4	5	6	7
PC							
SEM							
COE							
FPA							

36. CAC holders work in a model that involves the transfer of patient care from the primary family physician to a specialist-directed practice with which the CAC holder is aligned. Consider for each of the following domains.

	1	2	3	4	5	6	7
PC							
SEM							
COE							
FPA							

37. Feel free to use the comment box below to share any other thoughts and/or comments regarding CAC.
(Free Text)

***Chaque page : Vous pouvez sauter une question si vous préférez ne pas y répondre. Vous pouvez également envoyer vos réponses au questionnaire même si vous ne l'avez pas terminé, en cliquant sur le bouton « **Question suivante** » jusqu'à la fin du sondage, puis sur le bouton « **Envoyer** ». Si vous souhaitez arrêter et que vous ne voulez pas que vos réponses soient enregistrées, vous pouvez quitter le sondage à n'importe quel moment en fermant votre navigateur, ou en cliquant sur le bouton « Quitter et effacer les réponses ».

Première section

22. Votre année de naissance (Inscrivez l'année ou faites un choix dans la liste d'options. Votre réponse doit comporter 4 chiffres : 1984 par exemple.)
23. Votre sexe (Sélectionnez l'une options suivantes.)
 - a. Femme
 - b. Homme
 - c. Non binaire
 - d. Je préfère ne pas répondre.
24. Avez-vous obtenu votre diplôme de médecine au Canada ou à l'étranger? (Ne choisissez qu'une seule réponse.)
 - a. Diplôme de médecine obtenu au Canada
 - b. Diplôme de médecine obtenu à l'étranger

Veuillez indiquer l'année durant laquelle vous avez obtenu l'autorisation d'exercer la médecine familiale du Collège des médecins de famille du Canada. (Inscrivez la date ou faites un choix dans la liste.)

25. Avez-vous suivi un programme de résidence du Collège royal des médecins et chirurgiens du Canada (CRMCC), ou vous êtes-vous déjà inscrit ou inscrite à un tel programme? (O/N)

Si oui, lequel?

26. Veuillez indiquer si vous avez d'autres formations dans une profession liée à la santé. (Faites vos choix dans la liste.)
27. Déterminez-vous un certificat de compétence additionnelle? (O/N)

Si oui :

- Dans quel domaine de soins? (Faites votre choix dans la liste suivante : SP, SPA, MSE, AMF, MU, MT, [+ option permettant de sélectionner un autre CCA au cas où le médecin en aurait plus d'un]).

Pour chaque domaine de soins :

- Par quelle voie l'avez-vous obtenu? (Faites votre choix dans la liste suivante : la voie des leaders; la voie de la résidence; la voie de la vérification de la compétence; la voie de l'examen de compétence additionnelle.)
- Devez-vous actuellement détenir un CCA pour vos droits hospitaliers connexes dans le cadre de l'exercice de votre profession?
- En quelle année avez-vous obtenu ce CCA? (Écrivez l'année.)
- Avez-vous eu recours à des mesures de soutien au retour aux études pour obtenir la formation nécessaire à l'obtention de votre CCA? (O/N)

Si oui :

- À quel type de soutien avez-vous eu recours? Cochez tout ce qui s'applique. (droits de scolarité; aide financière pour couvrir les coûts associés à l'exercice de votre profession; aide pour trouver un remplaçant; autre [précisez]).

28. Avez-vous suivi un parcours officiel de perfectionnement de vos compétences non reconnu par un CCA? (O/N)

Si oui :

- Dans quels domaines de soins? (Écrivez les domaines.)
- Comment s'appelle le diplôme ou le certificat? (Écrivez votre réponse.)
- Où avez-vous reçu cette formation? (Écrivez votre réponse.)
- En quelle année avez-vous mené cette formation à terme? (Écrivez l'année.)
- Avez-vous eu recours à des mesures de soutien au retour aux études pour obtenir cette formation? (O/N)

Si oui :

- À quel type de soutien avez-vous eu recours? Cochez tout ce qui s'applique. (droits de scolarité; aide financière pour couvrir les coûts associés à l'exercice de votre profession; aide pour trouver un remplaçant; autre [précisez]).

Deuxième section

Les prochaines questions vous amèneront à décrire votre **pratique**, et se rapporteront à votre collectivité, telle que vous la percevez.

Remarque : Nous entendons par **médecin de famille en soins globaux** tout médecin qui offre des soins en permanence à un groupe donné de patients, de la naissance jusqu'au décès, dans divers contextes.

Lorsque vous répondez aux questions qui suivent, veuillez tenir compte de tous les aspects de votre pratique :

29. Dans quelle province ou quel territoire exercez-vous? (Faites votre choix dans la liste, qui comprend le Yukon, le Nunavut et les Territoires-du-Nord-Ouest.)
30. Est-ce dans une collectivité urbaine, périurbaine, rurale ou éloignée? (Ne choisissez qu'une seule réponse.)
31. Dans votre collectivité, y a-t-il un hôpital général qui comporte un service d'urgence et qui compte moins de 100 lits? (O/N)
32. Dans votre collectivité, y a-t-il un hôpital général qui comporte un service d'urgence et qui compte 100 lits ou plus? (O/N)
33. Quelle est la distance en voiture jusqu'à l'hôpital de soins tertiaires le plus proche qui offre des soins spécialisés et surspécialisés aux patients atteints d'une maladie mortelle ou dont les signes vitaux sont instables? (Faites votre choix dans la liste suivante : plus de 4 heures, 1 à 3 heures, 30 min à 1 heure, moins de 30 minutes.)
34. De quel type est votre pratique? (Choisissez toutes les réponses qui s'appliquent dans la liste ci-dessous.)
 - Dans un cabinet qui compte d'autres médecins
 - Dans mon cabinet privé
 - À l'hôpital
 - Dans un établissement de soins de longue durée
 - Dans un centre d'enseignement

- Surtout à titre de remplaçant
- Dans une clinique sans rendez-vous
- Dans un centre spécialisé (p. ex., médecine sportive, soins gériatriques, douleur chronique, etc.)
- Autres

35. Devez-vous conserver vos droits hospitaliers pour pouvoir exercer la médecine familiale dans votre collectivité? (O/N)

36. Devez-vous exercer la médecine familiale globale auprès d'un groupe donné de patients pour pouvoir exercer dans votre collectivité? (O/N)

37. Exercez-vous actuellement la médecine familiale globale? (O/N)

Si oui :

- Combien de jours par semaine êtes-vous en fonction? (Écrivez le nombre de jours.)
- Environ combien de patients avez-vous? (Écrivez le nombre de patients.)

Si non :

38. Avez-vous déjà exercé la médecine familiale globale? (O/N)

Si oui :

- Pendant combien d'années? (Écrivez le nombre d'années.)
- Environ combien de patients aviez-vous alors? (Écrivez le nombre de patients.)

39. Exercez-vous aux côtés d'autres détenteurs d'un CCA? (O/N/Peut-être)

Si oui :

- Dans quels domaines? (Faites votre choix dans la liste suivante : SP, SPA, MSE, AMF, MU, MT.)

40. Dirigez-vous des patients à d'autres détenteurs d'un CCA? (O/N)

Si oui :

- Dans quels domaines? Faites votre choix dans la liste. (SP, SPA, MSE, AMF, MU, MT)

41. Quelle est votre forme de rémunération? (Choisissez plus d'une option au besoin, en faisant vos choix dans la liste suivante.)

- Paiement à l'acte
- Salaire
- Dotation par patient
- Autre (Prévoir une option permettant de préciser quelle autre forme.)

Si la réponse était oui à la question n° 6, les questions suivantes seront accessibles ici.

42. Avez-vous constaté les répercussions suivantes après avoir obtenu un CCA? Cochez tout ce qui s'applique.

- Augmentation de votre rémunération
- Rémunération selon un barème de salaires
- Prolongation de la durée des rendez-vous avec les patients

- Augmentation de la flexibilité de l'horaire de travail
- Exercice plus intéressant de la profession en raison de l'augmentation de l'acuité
- Exercice plus intéressant de la profession en raison de la diminution des incertitudes
- Exercice plus intéressant de la profession en raison de l'augmentation de la diversité
- Exercice plus intéressant de la profession en raison de l'augmentation du temps consacré à des domaines de la médecine familiale qui vous intéressent davantage
- Exercice plus intéressant de la profession en raison de l'augmentation du degré d'expertise dans un champ d'activité plus restreint.
- Nouveaux rôles de chef de file liés au CCA (p. ex. enseignement, administration, politique)
- Exercice plus ciblé de la profession (p. ex., maintien d'un certain volume de patients à qui offrir des soins globaux)
- Une pratique entièrement ciblée (c.-à-d., une pratique qui ne comporte pas l'offre de soins globaux.)
- Augmentation des occasions d'enseignement aux autres médecins de famille de votre collectivité dans votre domaine de compétence additionnelle
- Augmentation des occasions d'offrir des services de consultation dans votre domaine de compétence additionnelle à d'autres médecins de famille de votre collectivité
- Modification de votre identité professionnelle
- Absolument aucun changement
- Autres :

Troisième section

Les prochaines questions vous amèneront à préciser dans quelle mesure vous êtes d'accord avec une série d'énoncés concernant les certificats de compétence additionnelle et leurs titulaires.

En répondant à ces questions, songez à vos expériences personnelles.

*****Le choix de réponses aux questions suivantes correspond à une échelle de Likert en 7 points, qui se lisent comme suit : 1 : Tout à fait en désaccord; 3 En désaccord; 5 : D'accord; 7 : Tout à fait d'accord)***.**

38. Les titulaires d'un CCA appliquent à leur travail dans un domaine spécialisé des soins de santé une façon de faire propre à la médecine familiale.
39. Les titulaires d'un CCA sont fondamentalement différents des autres spécialistes du même domaine de soins.
40. Les titulaires d'un CCA sont fondamentalement différents des praticiens polyvalents en médecine familiale globale.
41. Les titulaires d'un CCA sont fondamentalement différents des médecins de famille qui ont reçu une formation spécialisée, mais qui ne détiennent pas de CCA.
42. L'expérience antérieure en médecine familiale globale permet aux titulaires d'un CCA d'offrir de meilleurs soins.
43. Le titulaire d'un CCA augmente la capacité des médecins de famille d'offrir des soins globaux à une collectivité.
44. La collaboration avec les titulaires d'un CCA permet aux praticiens polyvalents en médecine familiale globale de consacrer plus de temps à d'autres aspects des soins aux patients.
45. Les titulaires d'un CCA ont repris une partie du champ d'exercice qui appartenait auparavant à la médecine familiale globale.
46. Les titulaires d'un CCA contribuent au maintien de la relation suivie entre le patient et son médecin de famille personnel.
47. Les titulaires d'un CCA contribuent à garder les patients des régions rurales ou éloignées au sein de leur propre collectivité, en acceptant des demandes de consultation qui seraient autrement dirigées à un spécialiste de l'extérieur de la collectivité.
48. Les titulaires d'un CCA répondent aux besoins particuliers d'une collectivité.
49. Le CCA devient de plus en plus indispensable pour les droits hospitaliers.
50. L'attribution des CCA favorise l'acquisition d'une sous-spécialité par des médecins de famille.
51. L'attribution des CCA n'incite pas les médecins de famille à perfectionner leurs compétences.
52. Les titulaires d'un CCA jouent un rôle de chef de file, de porte-parole et d'enseignant dans leur champ d'exercice de la profession.
53. Un CCA obtenu par la voie de la résidence est un marqueur valide de compétence dans un domaine de soins.
54. Un CCA obtenu par la voie des leaders est un marqueur valide de compétence dans un domaine de soins.
55. Un CCA obtenu par la voie de la vérification de la compétence est un marqueur valide de compétence dans un domaine de soins.
56. Un CCA obtenu par la voie de l'examen de compétence additionnelle est un marqueur valide de compétence dans un domaine de soins.
57. Les exigences d'obtention d'un CCA sont claires et transparentes.
58. Les critères d'obtention d'un CCA sont appliqués de façon uniforme.

59. La connaissance de la formation et de la réputation d'un collègue médecin est un indice plus fiable que le fait de détenir un CCA, pour ce qui est de lui faire confiance et de lui diriger des patients.
60. Les médecins de famille qui choisissent d'obtenir un CCA le font en raison d'un besoin de leur collectivité, que leur expérience en médecine familiale globale leur a permis de déceler.
61. Les médecins de famille qui optent pour l'obtention d'un CCA le font surtout pour des raisons personnelles et professionnelles (style de vie, rémunération, intérêt, validation de l'expertise, droits hospitaliers).

En lien avec la future orientation possible du programme des CCA :

62. Les titulaires d'un CCA devraient avoir l'obligation de maintenir leur compétence dans le champ d'exercice polyvalent de la médecine familiale globale.
63. Les titulaires d'un CCA devraient avoir accès à un barème de rémunération et d'honoraires unique qui reconnaît et facilite l'utilisation de leur compétence additionnelle.
64. Le programme de CCA devrait être annulé.
65. L'introduction des CCA a influé sur la façon dont les organismes de réglementation reconnaissent ou autorisent les praticiens en médecine familiale globale.
66. Les compétences additionnelles des titulaires d'un CCA devraient servir à combler les lacunes locales en matière de soins.
67. Les titulaires d'un CCA devraient avoir plus facilement accès aux possibilités d'emploi dans le domaine de soins lié à leur CCA.
68. Selon vous, quels sont les domaines de soins qui devraient faire l'objet d'un CCA? (Écrivez les domaines de soins.)

Quatrième section

Dans les prochaines questions, on vous demande jusqu'à quel point vous êtes d'accord avec les énoncés sur la façon dont les titulaires d'un CCA travaillent avec les autres médecins de leur collectivité dans chaque domaine.

En répondant à ces questions, songez à vos expériences personnelles.

*****Le choix de réponses aux questions suivantes correspond à une échelle de Likert en 7 points, qui se lisent comme suit : 1 : Tout à fait en désaccord; 3 En désaccord; 5 : D'accord; 7 : Tout à fait d'accord)***.**

69. Les titulaires d'un CCA œuvrent dans un modèle qui les amène à fournir des soins ou des conseils au médecin traitant qui leur dirige en patient, sans rompre la relation suivie de ce patient avec son médecin de famille personnel. Indiquez votre réponse pour chacun des domaines suivants :

	1.	2.	3.	4.	5.	6.	7.
SP							
MSE							
SPA							
AMF							

70. Les titulaires d'un CCA œuvrent dans un modèle dans lequel les médecins de famille dirigent leurs patients vers le titulaire d'un CCA pour une certaine période de temps ou pour un problème donné. Indiquez votre réponse pour chacun des domaines suivants :

	1.	2.	3.	4.	5.	6.	7.
SP							
MSE							
SPA							
AMF							

71. Les titulaires d'un CCA œuvrent dans un modèle dans lequel les médecins de famille dirigent leurs patients vers une discipline dirigée par un spécialiste en lien avec le titulaire. Indiquez votre réponse pour chacun des domaines suivants :

	1.	2.	3.	4.	5.	6.	7.
SP							
MSE							
SPA							
AMF							

N'hésitez pas à inscrire vos réflexions et autres commentaires sur les CCA dans la case prévue à cette fin ci-dessous. (Texte libre)