Web exclusive

Qualitative study of employment of physician assistants by physicians

Benefits and barriers in the Ontario health care system

Maureen T. Taylor CCPA D. Wayne Taylor PhD FCIM Kristen Burrows CCPA MSc John Cunnington MD FRCPC Andrea Lombardi CCPA MBA Michelle Liou MSC

Abstract

Objective To explore the experiences and perceptions of Ontario physician assistant (PA) employers about the barriers to and benefits of hiring PAs.

Design A qualitative design using semistructured interviews.

Setting Rural and urban eastern and southwestern Ontario.

Participants Seven family physicians and 7 other specialists.

Methods The 14 physicians participated in semistructured interviews, which were audiorecorded and transcribed verbatim. An iterative approach using immersion and crystallization was employed for analysis.

Main findings Physician-specific benefits to hiring PAs included increased flexibility, the opportunity to expand practice, the ability to focus more time on complex patients, overall reduction in work hours and stress, and an opportunity for professional fellowship. Physicians who hired PAs without government financial support said PAs were affordable as long as they were able to retain them. Barriers to hiring PAs included uncertainty about funding, the initial need for intensive supervision and training, and a lack of clarity around delegation of acts.

Conclusion Physicians are motivated to hire PAs to help deal with long wait times and long hours, but few are expecting to increase their income by taking on PAs. Governments, medical colleges, educators, and regulators must address the perceived barriers to PA hiring in order to expand and optimize this profession.

EDITOR'S KEY POINTS

- Physicians believe that PAs make patient care more manageable, help decrease wait times, improve continuity of care, improve quality of life, and might have some financial benefit.
- Barriers to integration and promotion of PAs included lack of familiarity with the PA role and scope of practice, absence of a funding model, and recruiting and integrating PAs into practice.

This article has been peer reviewed. Can Fam Physician 2013;59:e507-13

Exclusivement sur le web

Étude qualitative sur le recours à des adjoints au médecin par les médecins

Avantages et problèmes rencontrés dans le système de santé ontarien

Maureen T. Taylor CCPA D. Wayne Taylor PhD FCIM Kristen Burrows CCPA MSC John Cunnington MD FRCPC Andrea Lombardi CCPA MBA Michelle Liou MSC

Résumé

Objectif Étudier l'expérience et les perceptions des médecins ontariens qui emploient des adjoints au médecin (AM) quant aux avantages et aux obstacles liés au recrutement des AM.

Type d'étude Étude qualitative à l'aide d'entrevues semi-structurées.

Contexte Milieux ruraux et urbains de l'est et du sud-ouest ontarien.

Participants Sept médecins de famille et 7 autres spécialistes.

Méthodes Les 14 médecins ont participé à des entrevues semi-structurées qui ont été enregistrées et transcrites mot à mot. Une approche itérative utilisant l'immersion et l'itération a été utilisée pour l'analyse.

Principales observations Dans le cas des médecins, les avantages liés au recrutement d'AM incluaient une plus grande flexibilité, une occasion d'accroître leur clientèle, la possibilité de consacrer plus de temps aux cas complexes, une réduction du temps de travail et du stress, et une occasion de fellowship professionnel. Les médecins qui ont engagé des AM sans soutien financier du gouvernement disaient que c'était rentable à condition de pouvoir les retenir. Les obstacles au recrutement des AM comprenaient l'incertitude relative au financement, le besoin initial d'une formation et d'une supervision intensives, et le manque de clarté concernant la délégation des actes médicaux.

Conclusion Même si les médecins sont intéressés à engager des AM pour les aider à réduire les listes d'attente et

leurs heures de travail, peu d'entre eux s'attendent à accroître leur revenu de cette façon. Il faudra que les gouvernements, les associations médicales, les enseignants et les responsables des règlements tiennent compte des facteurs qui gênent le recrutement des AM si on veut accroître et optimiser cette profession.

POINTS DE REPÈRE DU RÉDACTEUR

- D'après les médecins, la présence d'AM facilite les soins des patients, aide à réduire le temps d'attente, améliore le suivi des patients et leur qualité de vie, et pourrait comporter certains avantages sur le plan financier.
- Parmi les obstacles à l'intégration et à l'avancement des AM, on mentionnait leur connaissance insuffisante de leur rôle et des limites de leur pratique, l'absence d'un modèle de financement, et les problèmes de recrutement et d'intégration de ces adjoints.

Cet article a fait l'objet d'une révision par des pairs Can Fam Physician 2013;59:e507-13

rovincial governments are faced with the challenge of increased use of health care resources coupled with escalating costs. In Ontario, the Drummond Report, which contained 362 cost-cutting recommendations for the province's public sector, advocated a net shift in responsibility from physicians to other types of health professionals, including physician assistants (PAs).2

The PA role in Ontario was introduced in May 2006 as part of the provincial government's health human resources strategy.2 The first civilian PAs included retired Canadian Forces PAs, US-trained PAs, and international medical graduates, and were hired as part of a demonstration project in hospitals, primary care settings, and long-term care facilities.2

Two new PA educational programs were launched at McMaster University in Hamilton, Ont, in 2008 and through the Consortium of PA Education at the University of Toronto in 2010.2 Approximately 90 graduates are now working in a variety of health care settings, most with a 2-year guarantee of full or partial funding provided by the Ontario Ministry of Health and Long-Term Care (MOHLTC). There are approximately 200 PAs working at more than 80 sites across Ontario as part of the HealthForceOntario initiative (M. Gottesman et al, unpublished data, 2013).

Although considerable investments have been made to introduce the PA profession in Canada, currently there is little research into PA integration, use, and financial effects. Previous reports and studies have surveyed small numbers of physician supervisors of PAs in specific groups.3-5 These demonstrated overall physician satisfaction, as well as tangible benefits such as increased surgical throughput and improved achievement of wait-time benchmarks. However, these physicians did not have personal financial investments in their PAs. Our study allowed for in-depth exploration of the views and opinions of participants. As supervisors, trainers, and employers, physicians are the key to the successful integration of PAs into the health care system. With no certainty about the sustainability of MOHLTC funding, this study sought to understand physicians' perceptions of the barriers to and benefits of employing PAs, and their willingness to employ PAs without government support.

METHODS

A qualitative exploratory study using semistructured interviews was conducted to investigate benefits of and barriers to employing PAs in a variety of clinical settings. Two authors (J.C. and M.T.T.) used personal contacts to assemble a purposive sample of physicians in eastern and southwestern Ontario who had hired or had

Table 1. Characteristics of study participants		
CHARACTERISTIC	NO. OF FAMILY PHYSICIANS	NO. OF OTHER SPECIALISTS
Practice model		
 Family health team 	5	0
 Family health organization 	2	0
• Family health group	0	0
• Fee for service	0	7
Location		
Urban	4	6
• Rural	2	1
Suburban	1	0
MOHLTC funding		
• Full	3	1
• Half	1	3
• None	2	4
PA background		
New graduate	4	6
US trained	1	1
Military trained	0	1

MOHLTC-Ontario Ministry of Health and Long-Term Care, PA-physician assistant.

expressed interest in hiring PAs. Recruited participants consisted of 7 family physicians and 7 other specialists. Sampling was designed to include Ontario physicians who received full or partial government funding for PAs, as well as any known physicians who had hired PAs without any financial support from the government (Table 1).

Informed consent for participation and audiorecording was obtained from each of the interviewed physicians. The recorded interviews were conducted by one researcher (M.T.T.) in late 2011 and early 2012 using a semistructured interview guide. Audiorecordings were transcribed verbatim and transcripts were analyzed using an immersion and crystallization approach by 3 separate investigators (M.T.T., K.B., M.L.).6 Key themes were identified as they emerged from each transcript and saturation occurred when no new themes emerged. Although the sample size was small, analytic saturation of themes was achieved. The duration of the interviews varied between 35 and 90 minutes.

FINDINGS

Various themes emerged from the transcripts and provided a clearer picture of physician employers' experiences with PAs in Ontario, as described in Boxes 1 and 2. Seventeen physicians were approached to participate in the interviews, and 14 agreed to contribute.

Benefits of hiring PAs

Improved patient care. Participants believed that having PAs improved the quality of care they could provide to patients. Having the PAs assess less complex cases, complete forms, and perform minor procedures allowed the physicians to use their time more efficiently: "I would spend a much shorter period of time seeing new patients because the information would be presented to me first [by the PA] and then I could deal with the emergent issues."

In addition, several family physicians noted that hiring PAs enabled them to better meet targets for vaccinations, Papanicolaou tests, blood pressure checks, and other preventive measures. Some physicians had their PAs provide patients with postoperative or intervisit telephone calls, which they believed improved consistency, continuity, and quality of care.

Decreased wait times and improved access to care. A large number of participants said that having PAs allowed them to see more patients per hour. This meant they could provide same-day access for acute problems: "We've been able to see people faster. We've switched during this period to same-day booking called 'advanced access' And so it works out quite nicely for our patients in that way."

Specialists in hospitals also believed the PAs decreased the lag time between referral and consultation.

Box 1. Benefits of PA employment

Physician or employer benefits

- Improved quality of life
- Collaborative work relationship and professional fellowship
- Increased flexibility and opportunities for physician
- Ability to expand practice
- Physician available to see more complex cases
- Increased earnings, including access to bonuses for preventive health care (eg, chronic disease visits, smoking
- Can delegate procedures, completion of forms, physical examinations

Patient benefits

- Improved continuity of care
- Increased access to care

Provincial or health care benefits

- Improved wait times
- Improved access in underserviced areas

PA benefits

- PA can have substantial effect on clinic efficiency
- PAs are trained to problem solve and develop management plans
- Medically oriented training
- PA familiarity with evidence-based medicine

PA-physician assistant.

Before hiring a PA ... I would get to [patients] maybe a week before discharge and the intervention ... [it] was sort of too little, too late. So ... [my PA] is allowing me to see patients and more complex patients in a more timely manner.

A fundamental objective behind the decision to initiate a PA program in Ontario was to improve access to care, in particular to help more Ontarians access

Box 2. Barriers to PA employment

Recruitment and retention

- Difficulty attracting PAs to rural areas
- Initial exposure to PA was not positive (personality, communication issues)
- Lack of continuous supply or not enough PAs available for hire in the province
- Maternity leave or medical leave (no one to replace PA) Lack of regulation
- Concern about delegated acts, CPSO standards
- Concern about being audited
- Lack of clear information about delegated acts and medical directives

Training and supervision

- Amount of supervision needed until comfortable with PA skill level or experience
- Need for compensation for supervising or training
- Inconsistencies among PAs in education and experience
- Lack of long-term plan from MOHLTC
- Frustration with application system for MOHLTC grant
- Initial loss of income waiting for PA to become efficient or attend additional training; funding is therefore instrumental to integration
- Needing to sign up or roster additional patients to cover PA expenses
- Affordability under MOHLTC guidelines or meeting salary standards
- Physicians "too greedy" to pay for PAs out of their own pockets

Integration

- Resistance from other health care providers
- Lack of hospital privileges restricting use of PA
- · Concerns about orientation, integration, and phasing in role of PA

Lack of knowledge about PA role

- Lack of interest owing to lack of knowledge or understanding of PA role
- Fear of being upstaged by the PA
- Concern about liability and insurance
- Inconsistencies about appropriate level of autonomy

CPSO-College of Physicians and Surgeons of Ontario, MOHLTC-Ontario Ministry of Health and Long-Term Care, PA-physician assistant.

primary care.3 Several family physicians stated that hiring PAs enabled them to roster more patients.

I realized that there's a lot of things you can handle remotely and through surrogate care like a PA, and actually extend your practice reach and potentially care for more patients. So that interests me quite a bit.

Financial or business incentives. A number of physicians believed hiring PAs had the potential to increase their income.

All I know is that the OHIP [Ontario Health Insurance Plan] cheque for December was considerably higher than what we had done previously. And you would expect that. I've seen more patients [with a PA], so the OHIP cheque should be larger.

However, few participants mentioned increased income as a motivating factor behind hiring PAs.

We were willing to put that money forward anyways because there are other benefits that ... could come forward, maybe other efficiencies other than billing. You know, it might free up my time to see other patients.

There were various business models developed by physicians who received partial or no government funding for their PAs, which included paying the PAs a portion of the OHIP fee schedule for each patient seen by the PAs. Many of the participants were clear about their interest in developing mechanisms for long-term funding.

I think you can actually build the business case very easily and someone should do that, to show that with a relatively small number of patients and procedures per day, that [PAs] help to facilitate better care.

Improved quality of life. There was widespread agreement that working with PAs could improve a physician's quality of life. Physicians cited an opportunity for professional fellowship (especially in solo practices), increased flexibility, the ability to focus more time on complex patients, and overall reduction in work hours.

There is some financial cost, but there is a better quality of care for patients, more access, and a better quality of life for me ... as far as I'm concerned, I have one of the best jobs in Ontario now [that I have hired a PA].

Physicians who had previous experience training or practising in the United States were already familiar with the PA role, and therefore were more enthusiastic about the potential for PAs to have a positive effect on their practices.

[My colleagues and I] are all used to the [PA] model and we all saw the huge value of it. So it's not about convincing my faculty of the value of PAs and how they could work into our division. It's just really working out the logistics and the finances.

Barriers to hiring PAs

Lack of familiarity with the PA role and scope of practice. There was considerable variation in how the PAs were used and the type of supervision expected. Some physicians believed they had to see every patient before turning the patient visit over to the PAs.

It's a new profession so nobody knows what the heck it is or what you're supposed to do with them or how they work. And there are huge misconceptions out there ... how they fit into the medical system, who is liable for them ... that sort of thing.

There were concerns expressed about a lack of clear guidelines from the Ontario Medical Association and the MOHLTC about a number of logistic issues, including how to delegate an appropriate level of autonomy, liability, insurance, and the application of medical directives.

Because when I was looking through what's required for appropriate delegation of tasks, it's not that crystal clear to me exactly what needs to be done for proper documentation.

I don't think [I can let my PA give joint injections], because if anything goes wrong I'm the one who has to stand up in court and say I'm responsible. So I drew the line there.

Absence of funding model. Physician employers who had received MOHLTC grants feared that funding would be withdrawn with no plan to provide an alternative: "So if the government pulls the plug on the funding, basically I'm stuck with a whole bunch of patients ... without the capacity to provide the service."

Despite these founded concerns, physicians did recognize that government funding for PAs could not continue indefinitely.

Don't pull the funding carte blanche. Let's continue to increase the numbers out in the community ... let's get the physicians addicted to them and then gradually wean them off the financial grants. But let's have a plan.

Physicians were aware that current provincial funding models did not permit physicians to bill for services provided solely by PAs,7 but many indicated that this was open to interpretation and often ignored. Physicians believed that if they were responsible for the patients seen

by their PAs, they should also be entitled to some form of remuneration for the delegated work: "If our PA goes to a family meeting and I'm not there, I cannot bill for it. Yet she cannot bill for it either. It's productive, the patient care gets done, but it's not economically remunerative."

Non-family physician specialists believed they should be able to bill OHIP for a portion of the fee schedule for PA services, and that this type of funding model should eventually replace the MOHLTC grants: "If the PA[s] could bill for their time, and see patients and not have me be directly involved, that would be great. That would certainly help me cover a PA's salary."

Recruitment, integration, and human resources. Other identified barriers included the inability to obtain hospital privileges for the PAs, difficulties in recruiting PAs owing to geographic location, navigating malpractice insurance coverage, resistance from other health professionals, and the limited number of available PAs. One of our family medicine participants decided not to hire a PA despite his positive experience with PA clerks. His reasons included concerns that he could not roster enough new patients to cover the cost of the PA salary, and that the PA would need to take maternity or some other type of medical leave in the future, with no ready pool of PA replacements. In addition, some physicians reported other nonsalary costs of hiring PAs, including extra office space and administrative staff, and concerns about lost productivity in situations in which a new PA required additional training and supervision. Physicians were divided about whether these costs were substantial barriers to hiring.

DISCUSSION

Previous surveys of physician employers of new PA graduates in Ontario have demonstrated that PAs are meeting expectations and improving quality of and access to care.5 Our study supports this, but our qualitative approach further identifies specific benefits of and barriers to PA employment. Interviewed physicians endorsed many benefits, but also identified potential and current barriers that needed to be considered by those interested in using PAs and optimizing the PA role.

Despite having a scope of practice that mirrors that of their supervising physicians, we found considerable variation in physician use of PAs within hospital and clinical settings in Ontario. This was owing to concerns about autonomy, billing, and variability of PA experience and skill sets. It is not surprising that the autonomy of PA practice varies considerably with experience, training, practice setting, and employer expectations.^{5,8,9} As this is a new profession in Canada, it is critical that physicians who hire PAs have a realistic understanding of the training and supervision PAs require once hired. It is equally important that physicians understand that the PA scope of practice is designed to be negotiated and flexible, and can expand with additional knowledge acquisition and experience.10

Unlike PAs in Manitoba and New Brunswick, PAs in Ontario are currently unregulated. An application for regulation11 was turned down by the MOHLTC and instead, the College of Physicians and Surgeons of Ontario will create a PA registry. While some organizations have used lack of regulation to criticize the PA profession,12 physicians in our study did not see lack of regulation as a barrier to employing PAs. It appeared that many physicians did not expect regulation of PAs to address the very real concern of whether it is legal and ethical for a physician to bill for services provided by a PA. Currently, the MOHLTC states that a physician must be "actively" involved in the patient's care in order to be paid for a delegated service provided by the PA.7 It is obvious from our study that PA employers have different interpretations of this statement. On the other hand, as physicians are legally liable for everything done by the PA they are supervising, the physicians in our study ensured a certain level of involvement with every patient seen by the PAs, even if they did not physically see every patient during every visit. These issues are dynamic and require further clarification from governments and colleges.

Sustainable PA funding models are needed to address physician employer concerns. Ontario Ministry of Health and Long-Term Care funding grants were integral to supporting physicians interested in hiring PAs. Physician concerns about lost income and productivity during the initial training process should be acknowledged and integrated into the development of long-term funding models. In addition, the lack of a funding model is a disincentive for family physicians to roster new patients, out of concerns they will be unable to look after these patients should they have to lay off the PAs. Physicians recognize that government funding cannot continue indefinitely. If employers had a clear understanding of how funding would be phased out, they would feel more confident deciding how many new patients to roster, choosing cost-effective procedures and services to be provided by the PAs, and deciding where to concentrate other office resources. Non-family physician specialists who are paid through fee for service want to see a funding model in which they could bill OHIP for a portion of the fee when a PA performs a service, even if the physician is off-site. This is similar to the way PAs are reimbursed in the United States. 13 Both the Canadian Medical Association and the Ontario Medical Association have called on provincial governments to change current legislation so that physicians can bill provincial governments for care provided by PAs under their supervision.^{7,14}

The primary motivation of the interviewed physicians in taking on PAs was not personal financial gain, but improving their own work-life balance by having capable colleagues share the patient load. Physicians reported condensed work hours, reduced stress, and increased flexibility to see new or more complex patients. Physicians are delegating some important but less appealing parts of their practices to PAs, such as paperwork and telephone follow-up. Although few have done a cost-benefit analysis of PA employment, physicians believe hiring a PA has the potential to increase a physician's income. The MOHLTC pays primary care physicians preventive care bonuses for procedures such as cancer screening and vaccinations. Physicians reported they were able to claim more of these bonuses by employing PAs in their practices. In addition, physicians believe there are wider benefits of hiring PAs for their patients and the health care system in general.

This qualitative study was limited to a small number of physicians who had hired PAs or wanted to hire PAs, mainly in urban areas of Ontario. Their views represent very personal experiences limited to 1 or 2 PAs each. Each PA-physician relationship is unique, and perceived benefits of and barriers to PA employment might change with additional exposure to other PAs. Most of the participating physicians received full or partial government funding for the PAs, but we did capture 6 physicians who were funding PAs without any government support. This is a unique group in Canada, and one that has not been studied previously. Only 3 of the participants cited resistance from other health care professionals as a barrier to hiring PAs, but this might be because most of our participants used PAs in clinic or office settings and not in hospital settings, where nurses, nurse practitioners, and other allied health practitioners would be more numerous and where conflicts around directives and responsibilities might be more likely to arise.

Future studies need to continue to identify factors that affect successful integration of PAs, including the effect on physician income. Interestingly, none of the interviewed physicians cited patient concerns or patient safety with regard to the PA role as a barrier to hiring PAs. Patient acceptance appears to be a nonissue for physicians, but understanding patient perceptions of the PA role needs to be addressed within the context of the Canadian health care system.

Conclusion

Six years after the introduction of PAs in Ontario, physicians appear to be optimistic about their use, although they are divided about their sustainability in the absence of a clear funding model. Physicians believe that PAs make patient care more manageable, help decrease wait times, and improve continuity of care. With any new profession, there are expected barriers to

integration and promotion. With professional regulation, an increased number of employable PAs, and the development of sustainable funding models, it is likely more physicians will choose to hire PAs in their practices. 🧩

Ms Taylor is a physician assistant and Clinical Assistant Professor in the Department of Family Medicine at McMaster University in Hamilton, Ont. Dr Taylor is Executive Director of the Cameron Institute in Cambridge, Ont. Ms Burrows is a physician assistant in general internal medicine at St Joseph's Healthcare in Hamilton and a Clinical Assistant Professor in the Department of Family Medicine at McMaster University. Dr Cunnington is Founding Assistant Dean of the Physician Assistant Education Program at McMaster University. Ms Lombardi is a physician assistant with the Orillia Family Health Network in Ontario. Ms Liou is a student in the teacher education program at Brock University in St Catharines, Ont.

All authors contributed to the concept and design of the study; data gathering, analysis, and interpretation; and preparing the manuscript for submission.

Competing interests

None declared

Correspondence

Ms Maureen T. Taylor, 62 Hillhurst Blvd, Toronto, ON M5N 1N6; telephone 416 483-3246; e-mail maureen.taylor@medportal.ca

References

- 1. Health. In: Commission on the Reform of Ontario's Public Services. Public services for Ontarians: a path to sustainability and excellence. Toronto, ON: Ontario Ministry of Finance; 2012. Available from: www.fin.gov.on.ca/en/ reformcommission/chapters/ch5.html. Accessed 2013 Oct 23.
- 2. HealthForceOntario. Ontario's Physician Assistant Initiative. Ottawa, ON: HealthForceOntario; 2009. Available from: www.healthforceontario.ca/pa. Accessed 2013 Oct 17.
- 3. Jones IW, Hooker RS. Physician assistants in Canada. Update on health policy initiatives. Can Fam Physician 2011;57:e83-8. Available from: www.cfp.ca/ content/57/3/e83.full.pdf+html. Accessed 2013 Oct 17.
- 4. Bohm ER, Dunbar M, Pitman D, Rhule C, Araneta J. Experience with physician assistants in a Canadian arthroplasty program. Can J Surgery 2010:53(2):103-8. Epub 2010 Mar 26.
- 5. Kulatunga-Moruzi C. The integration of the inaugural graduates of the McMaster University Physician Assistant Education Program into Ontario's health care system: a survey of employer perceptions and reflections. Ottawa, ON: Ontario Health Human Resources Research Network; 2011. Available from: http://rorrhs-ohhrrn.ca/index.php?option=com_content&view=article&i d=156&Itemid=42&lang=en. Accessed 2013 Oct 17.
- 6. Borkan J. Immersion and crystallization. In: Silverman D, editor. Doing qualitative research, 2nd ed. Thousand Oaks, CA: Sage Publications: 1999.
- 7. Ontario Medical Association statement on physicians working with physician assistants. Toronto, ON: Ontario Medical Association; 2009. Available from: www.oma.org/Resources/Documents/2009PAOMAStatement.pdf. Accessed 2013 Oct 17.
- 8. Drennan V, Levenson R, Halter M, Tye C. Physician assistants in English general practice: a qualitative study of employers' viewpoints. J Health Serv Res Policy 2011;16(2):75-80. Epub 2011 Mar 11.
- 9. Farmer J, Currie M, Hyman J, West C, Arnott N. Evaluation of physician assistants in National Health Service Scotland. Scott Med J 2011;56(3):130-4. Epub 2011 Aug 30.
- 10. Mittman DE, Cawley JF, Fenn WH. Physician assistants in the United States. BMJ 2002;325(7362):485-7. Epub 2002 Aug 31.
- 11. Canadian Association of Physician Assistants. Health Professions Regulatory Advisory Council application. Ottawa, ON: Canadian Association of Physician Assistants; 2012. Available from: www.hprac.org/en/projects/resources/ $CAPA Application for Regulation of Physician Assistants under the RHPA_\\$ EN.pdf. Accessed 2013 Oct 21.
- 12. Registered Nurses' Association of Ontario. Position statement: physician assistants. Toronto, ON: Registered Nurses' Association of Ontario; 2010. Available from: http://rnao.ca/policy/position-statements/ physician-assistants. Accessed 2010 Jan 30.
- 13. American Academy of Physician Assistants. Reimbursement issues: thirdparty reimbursement for PAs. Alexandria, VA: American Academy of Physician Assistants; 2010. Available from: www.aapa.org/uploadedFiles/content/ Common/Files/RI_3rdParty_v4%20-%20052711%20UPDATED.pdf. Accessed 2010 Jan.
- 14. Canadian Medical Association, Canadian Association of Physician Assistants. Physician assistant toolkit. A resource for Canadian physicians. Ottawa, ON: Canadian Medical Association, Canadian Association of Physician Assistants; 2010. Available from: www.healthforceontario.ca/ upload/en/work/pa-toolkit_en.pdf. Accessed 2013 Oct 21.