

A PERSPECTIVE ON THE ECONOMIC SUSTAINABILITY OF THE PHYSICIAN ASSISTANT PROFESSION IN CANADA.

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Abstract

Physician Assistant funding is about dollars and cents, but will we have those dollars if we don't apply common sense? The physician assistant (PA) role represents one of the most revolutionary and yet financially subversive additions to our current health care system. PAs are medically educated clinicians whose generalist training allows them to work in any setting within a formalized agreement with a physician. When used to their full capacity, PAs help supplement physician care, increase patient access to care, and improve efficiencies. Despite provincial interest in improving access and delivering cost-effective and efficient health care, our healthcare system rarely factors in the opportunity costs and comparative advantages offered by the introduction of PAs. This paper outlines the importance of increasing Government and employer awareness of sustainable funding models and the growing need to develop alternative policies to support PA utilization to optimize healthcare delivery. If the effectiveness of the PA role comes down to dollars and cents, then it is time to examine those dollars using common economic sense to ensure a sustainable and accessible healthcare system for all Canadians.

Introduction

Our healthcare system is dynamic and must continuously shift in response to breakthroughs, changing resources, innovation, and continual flux of patients, staff, funding, and government policies. New services, talent acquisition, and forward-thinking management structures are often sidelined in health care policy discussions in lieu of new technologies and scientific discoveries. Our healthcare system is primarily focused on providing medical care with an emphasis on disease management by professionals. While it may often appear to an outside observer that healthcare as always overlaps with medical care, they can be distinct entities. Healthcare is seen by the World Health Organization as having a broader focus of the maintenance or improvement of health via the prevention, diagnosis, and treatment of disease, illness, injury, and other physical and mental impairments in human beings. Despite the rise of interprofessional health teams and documented benefits, the historical hierarchy of healthcare functionally and figuratively places physicians and nurses as the primary deliverers of healthcare. Alternatives such as physician assistants, midwives, nurse practitioners and other advanced care clinicians are often overlooked in larger human health resource strategies. Our current system often neglects the opportunity costs of current policy by not actively and effectively investigating alternative models of care and development of reflective policies.⁽¹⁾ The disconnect between economic theory around health care delivery (i.e. opportunity cost, cost-benefit analysis, role substitution, etc.) and current hospital and

community healthcare staffing models are not promoting cost-effective care. Attention needs to be focused on if we are utilizing our most expensive health human resource, physicians, to their best extent and what policies can change to allow non-physician care providers to extend the medical services delivered to our healthcare system.

Physician Assistants (PAs) represent one of the most complimentary and yet unsupported and unexplored additions to our healthcare system. PA generalist training, duration of education programs, proportionately lower salary scales and PA-team collaboration generates a flexible and responsive health care provider that can supplement and improve efficiency within healthcare systems.⁽²⁾

Physicians acquire a specialized knowledge base through years of training, including undergraduate and postgraduate medical education and are remunerated at a much higher pay scale reflective of the level of obtained education, an area of specialization and technical skill sets.^(3,4) In contrast, PA graduate-level generalist training leads to a career focus on clinical practice and medical specialty knowledge gained through experience. This on-the-job knowledge acquisition is a design characteristic that improves and optimizes the efficiency of physician-delivered healthcare services. The value of high-quality care comes at one-third to half the salary of a physician at an estimated 65-80% of the productivity in a defined general practice.⁽⁵⁾ This substitution effect is based on a range of numbers that reflect estimated productivity, the nature of the practice, the experience of the PA or physician, the clinical environment and community demographics. This variability can make economic modelling challenging, especially for policymakers unfamiliar with the role or those uncomfortable with the suggestion that a non-physician provider can more cost-effectively provide some physician tasks. PAs are trained to manage patients within their scope of practice, work collaboratively with their physicians, be integral members of healthcare teams and support and extend physician services.

From the Sick Berth Attendants on the Royal Canadian Navy's first ships to the Senior Medical Assistants and 6B medics, the Physician Assistant role has been threaded throughout Canadian healthcare for years⁽⁶⁾ There are now approximately 650 physician assistant (PAs) practicing in the Canadian Armed Forces, Manitoba, Ontario, Alberta and New Brunswick's healthcare systems. In these provinces, PAs are providing an improved level of care to patients by increasing access, improving patient outcomes and reducing wait times.

A 2017 study conducted by the Conference Board of Canada measured the impact of PAs on the Canadian healthcare system. A series of reports were published confirming the value of PAs and demonstrated substantial cost savings and productivity gains with their expansion.⁽⁷⁾ The final report concluded that PAs are essential members of the healthcare team and provided recommendations for provincial governments.⁽⁸⁾ The absence of sustainable funding models was identified as the most significant barrier to the growth of the PA profession in Canada.

Current Provincial Funding

PAs are funded across the country in a variety of ways, including salary, fee for service and capitated models. Some Provincial Governments have identified priority areas, such as family health teams or hospital settings, and subsequently financially supported the role of PAs in these settings to help extend services. Despite this interest, inconsistencies remain across the country with little discussion around resolution or sustainability.

Canada graduates approximately eighty PAs annually from four educational programs across the country in Ontario and Manitoba. Civilian PA program curriculums mirror the Royal College's CanMEDS physician framework and are affiliated with each university's respective faculty of medicine.⁽⁹⁾ Since the launch of civilian programs in 2008, the majority of graduates have successfully found employment, but the sustainability of their positions continues to be a significant issue leading to unnecessary turnover and relocation.

- In Manitoba, the majority of PA positions are centrally funded, and as a result, new graduates are successfully securing employment. While the number of PAs in Manitoba is relatively small (98 PAs and 76 Clinical Assistants as of March 22, 2018), PA funding is a minuscule component of the 1.2 billion dollar medical remuneration budget for Physician services ("other" medical professionals account for \$29 million, or 2.5% of the budget).⁽¹⁰⁾
- In Ontario, the Ministry of Health and Long-Term Care provides career start grants for Ontario program graduates. The career start grant funds 50% of a new graduate's salary for one year based on a 2010 salary band of \$75K. While this program is essential to opening up opportunities for new graduates, there is no transitional long-term funding model. This limited support often requires a PA to seek different employment after the grant terminates, and unintentionally supports a system where more experienced PAs are replaced with new grads because of the grant incentive. It becomes increasingly difficult for experienced PA practitioners to find employment because of the lack of funding structures. There are some exceptions to this, including Family Health Teams that can access funding for interprofessional health care providers that can be extended to include PAs. This variable funding status has created a variety of disconnected funding models, including rostering additional patients, using government incentives for meeting wait time targets, or using collective OHIP billings to cover a PA salary. While these creative approaches have led to full time, permanent PA positions, this funding is not guaranteed and can fluctuate based on external factors.⁽¹¹⁾
- In Alberta, the government provides funding to Alberta Health Services (AHS) for salaried positions used to integrate PAs into various communities with a substantial focus on rural medicine. This funding was initially for a Demonstration Project (2013-16), but some funding has been extended to secure existing positions in the province. AHS is in the process of working on long-term funding models for PAs.
- In New Brunswick, there are only 3 PAs practicing in emergency medicine with little expansion due to the lack of funding models like in other jurisdictions. This absence of funding models is causing concern for the PA community, physicians and students who enrolled in a Canadian PA program.

PAs were first introduced in the public healthcare system in Manitoba, followed by Ontario, New Brunswick and Alberta. In all cases, it was the Provincial Health Authorities or Ministry of Health that lead the initiative following lobbying from physicians. Some evidence was collected that yielded enough favourable results to extend many contract positions beyond Demonstration Projects: however, a long-term integration strategy was never developed for these jurisdictions. Manitoba and Alberta continue to have the most stable funding frameworks through centrally funded, salaried positions. It remains to be seen if this practice will continue in the face of healthcare austerity measures. This uncertainty translates into significant concerns for the sustainability of the profession. Given the initial launch of Government

PA initiatives, provincial governments have an ongoing responsibility to ensure that the profession they championed has an opportunity to flourish.

Without the backing of provincial governments, PAs will continue to struggle to source funding for their positions, graduates will face uncertainty regarding their career opportunities, and patients will not benefit from consistent access to high-quality medical care. Most importantly, the healthcare system loses out on an opportunity to improve access to care for Canadians at a substantial cost-savings. It has been projected that the integration of PAs not only improves patient outcomes but also saves the healthcare system millions.⁽¹²⁾ In today's environment, there are substantial changes that lie ahead for health care. With an ageing population and growing health human resources challenges, governments need to find creative, effective and efficient ways to care for our communities. By extending Physician services at a significantly lower cost, PAs are a practical solution.

Economic Theory

In regards to the PA role and extension of physician services, there is a straightforward economic thought exercise that can be empirically tested using the theory of comparative advantage. Comparative advantage is a straightforward way of looking at a cost-benefit production choice between two somewhat similar groups with different wages and productivity. One health care provider may be more efficient at a specific medical task than another, but due to wage differences, it will be more effective if each respectively specialized. The goal is to find a perfect combination of health professionals that allows for the production of goods and services (medical care) at a lower opportunity cost – when this combination also increases efficiency or a higher volume of care, and there are numerous advantages.

To apply this to the PA-physician model, step 1 is to quantify the time required for a physician or PA to perform a specific, medical task (i.e. biopsy, laceration repair, or clinical consultation). The next step is to factor in the consultation time for physician oversight of the PA (which will range from no time to “X” number of minutes depending on the level of experience and degree of trust), multiplied by the hourly wage of the medical personnel in question. Finally, the physician cost-per-procedure is compared to the PA cost-per-procedure. This model is highly simplistic but overwhelmingly supported by empirical tests and the labour market expansion of PAs in the United States.⁽¹⁴⁾ This style of examination can be altered for specific medical specialties, which could more accurately demonstrate cost savings for a variety of medical encounters in Canada.

For example, let's assume it takes a physician an average of 10 minutes to complete a clinical consultation. Perhaps it takes a PA an average of 15 minutes to do the same consultation, plus an additional 2 minutes to review the case with the supervising physician. If the physician is remunerated at \$120 per hour, and the PA is remunerated at \$45 per hour, the systems cost would be \$20 per physician consult, or \$13 dollars per PA consult (with physician collaboration). The PA-physician team could treat 1.42 patients for the same cost of every solo physician consultation. In this situation, it is more cost-effective for the PA to perform clinical consultations and free the physician up to see other patients.

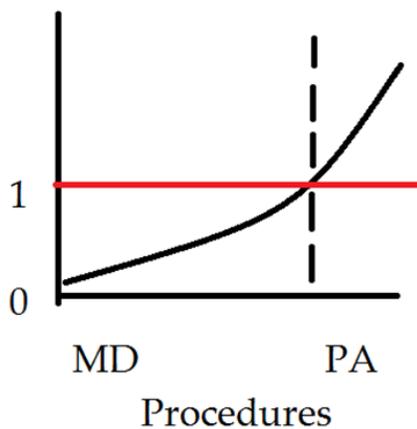


Figure.1: Comparative Advantage Representation

The comparative advantage exercise is reflected in Figure 1, with procedures that would be optimally performed by a PA being found to the right of the dotted line and for those to the left by doctors. The red line is the break-even point for physicians and PAs being equally qualified to perform a task at the same cost.

Funding Models

PA funding models must consider the close working relationship between the PA and supervising physician. Political and financial pressures complicate compensation for the oversight of another health professional, and a one-size-fits-all approach will not work. Provincial rules of application that govern physician billing practices are the primary stumbling block to addressing PA compensation. Until physicians can either bill for the work done by their PA, or the PA can bill for their patient encounters, PAs cannot work to their full scope of practice. Physicians are therefore forced to either replicate the work already done by the PA, or risk violating the rules of application.

Conceptually three funding frameworks are applied to PAs: fee for service, salaried model, and a blended model.

Fee for Service Model

The fee-for-service model may be the simplest model to adapt for PA employers. The rules of application could be modified to allow physicians to bill for work done by PAs (at a lower rate) or the fee-for-service schedules could be amended to allow PAs to charge and bill for their services (at a lower rate than physician remuneration). This is similar to the American "incident to" Medicare model, where the PA has a National Provider Number (NPI) and can bill at 85% of what the physician is billing in remote and rural settings.⁽¹⁵⁾

Blended Model

Recognizing the concern that modifying the rules of application to allow for a fee-for-service PA billing practice could result in ballooning costs, we propose the following restrictions:

- 1) Place a cap on future physician billings based on a historical review;
- 2) Calculate a practice specific incident rate;
- 3) Limit which codes can be billed and set parameters around to what extent and at what frequency a code can be billed.

Salary Model

The salary model is currently in place in Manitoba and Alberta and is similar to Nurse Practitioner funding in Ontario. Salary funding can be administered centrally, regionally or through the health

authorities to health facilities such as community health centres, family health teams, hospitals, long-term care centres, urgent care centres, etc. With this model, the government can budget an allotted amount for annual distribution to the health facility. The PA would be compensated directly by the facility, and this avoids any concerns about shadow billing or misuse. A direct benefit is that care services can be provided and extended to health facilities who most need additional care support, and the PA is a more cost-effective option over hiring a physician (at a higher wage cost or perhaps with lower availability) to provide similar services.

Conclusion

Resolving the question of how to fund PA positions is essential to the continued growth and sustainability of the PA profession. The integration of PAs is well received across many Canadian Provinces, but with increased healthcare costs and stressors on our healthcare system, evidence around sustainable funding models and economically feasible health human resource strategies must continue to catch the attention of policymakers

This perspective identified some current barriers to the economic sustainability of the PA role and outlines potential funding frameworks. PAs and physician colleagues recognize the need for additional research on Provincial funding frameworks to assess cost-effectiveness, human resource challenges, and to correct misconceptions around workforce labour substitution. Provincial Ministries of Health need to identify and secure a reliable funding source for PAs by working in collaboration with physicians, PAs, administrators, policy makers and professional associations. PA funding is essential to supporting medical care to all Canadians through decreased wait times, improved access to care, and by substituting in lower-cost, high-quality health care professionals such as PAs to effectively and efficiently extend physician services. Ultimately the first government to initiate a comprehensive funding structure for PAs will reap the benefits through cost savings and improved PA recruitment and retention in their region, thus allowing patients to benefit from increased access to cost-effective, high-quality PA healthcare.

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