

Physician Productivity Issues in Canada
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Abstract

Canada has made significant strides in the area of health human resources, including the sector of physician productivity. New models of measurement have been designed and are in various phases of implementation across the country. These tend to capture the increasing complexity and diversity of physician work, and reflect a move away from a fee for service model of delivery. Part time employment, employment within team structures or with adjunct professionals, is on the rise and resulting in concerns about the productivity of the system as a whole. Complicating these trends are increasing rates of retirement, and productivity patterns of younger physicians, physician-parents, and women physicians that are all lower than current cohorts of physicians. Medical schools are increasing production and are training students to work within models consistent with health care reform. Provinces are also working with federal agencies to increase the intake and utilization of international medical graduates, implement large-scale technological reforms, and ongoing primary care reform. New roles for professionals are also emerging, such as nurse practitioners, physician assistants and hospitalists, but data on the impact of these roles and overall physician productivity is limited. Finally, recent decisions by the Supreme Court of Canada suggest even more complex reform is to come, and the impact of such decisions on physician productivity in Canada is largely theoretical.

Measures of physician productivity in use in Canada

Physician productivity is a measure of a physicians' work or output. It is not a simple measure, particularly in Canada's increasingly complex health care systems. More traditional measures of measurement include simple statistics related to number and types of patient encounters, income generated, or total hours spent in direct patient care.¹ Our contemporary understandings of physician work reflects an understanding that productivity varies across physicians for multiple reasons – semi retirement, part time work, blend of academic/clinical duties, different models of care and practice, generational attitudes and attributes, age, sex, and many other variables. Thus, traditional approaches have limitations which are readily apparent given the increasingly complexity of physician productivity.

Canada has put great effort into developing innovative approaches to health care delivery, particularly given its single payer model of service. Where once most Canadian physicians were committed to a fee for service model, and its inherent encouragement of increased productivity through increased volume of patients, a significant shift away from this single model is taking hold. Alternative delivery mechanisms, alternative payment plans, blended remuneration models, and other models of remuneration are becoming

more popular. In addition, more complex models of the physician workplace are emerging, with multidisciplinary and/or interdisciplinary practices, use of nurse practitioners and/or physician assistants, and integrated models of care becoming more prominent.

The rapidity of change has been so fast that existing measures of physician productivity are quickly becoming outdated. It is essential that the country develop more comprehensive models of measurement, data collection, and longitudinal evaluation.

Productivity and efficiency are closely connected as concepts. For example, using more traditional approaches, a physician who sees more patients per hour is “more efficient and productive” than a colleague who sees only half as many. However, these concepts do not measure the quality of care provided nor patient satisfaction. In addition, such models reward brief and intense service delivery, and discourage work that may be more complex, less active, or more challenging. Finally, such language cannot aptly assess the contribution of para-medical support, technology, geography, and other such variables on the final common pathway of a physician’s productivity.

Economic literature has long advocated for a diverse approach to the concept of physician productivity.² These include adjunct or complimentary elements that enhance physician productivity in the delivery of direct patient care (paramedical personnel, technology, and administrative support), individual personality variables and factors, financial incentives and disincentives, and group or professional culture as it relates to productivity³. Of interest, it appears from longitudinal literature that physicians tend to respond less to financial incentives and more to the cultural aspects of productivity.

Research dating back several decades⁴ highlights several critical variables related to productivity which have yet to be successfully challenged in the literature: individual level financial incentives promote productivity; groups tend to accept less efficiency in exchange for the personal benefits of shared risk; increased capital, paramedical, and administrative support help boost productivity of physicians; and the size of the group both positively and negatively interacts with productivity (depending on group size). The authors also promote that the opposite is true, and indeed these variables have been shown to be relevant across systems and across nations⁵.

In Canada, population based models of care are not at all tied to most measures of productivity. Yet, these models are a major tool in primary care and primary health care reform, and standards of measurement are essential to help assess and evaluate the impact of reform on the system as a whole.

Two other contemporary models of measurement include:

Resource-Based Relative Value Scales – These scales have been designed to capture any number of variables such as skill, duration, judgment, risk, and stress involved in a medical act or procedure. In several provinces, most recently Ontario, RBRVS was an instrument utilized to reduce fee disparities amongst the profession and improve

productivity in key sectors⁶. However, the profession largely rejected this model (particularly older physicians) and more traditional pathways of adjusting remuneration were used to reduce disparity. It is unclear if such mechanisms will significantly affect physician productivity in Canada as most sectors currently report being at or near full productivity.

Benchmarking – This refers to the process of comparing attributes within peer groups, and is usually applied along a broad array of variables (productivity, group practice design, clinical outcomes and, more recently, quality, patient satisfaction, and other productivity related indicators.⁷ This is in early stages of development and implementation, but has been utilized in wait list management exercises.

Alternative models under consideration in Canada

In Canada, the notion of the “Full Time Equivalent” (FTE) is gaining national prominence as a standard model by which to assess productivity. This model standardizes practice size to a common denominator and measures productivity of the physician to what is considered a typically maximized practice. This model is particularly vogue in that it can help adjust variations in individual physician productivity while still allowing for population level measures.⁸ Such variants include pattern of billings, volume and type of patient contacts, time spent on services, and pattern style. The Canadian Institute for Health Information (CIHI) has a well-established model for monitoring FTE’s in Canada. The CIHI formula allows for comparisons among different types of physicians, across specialties, and over time. This longitudinal project is adding complexity to the model over time, including alternative funding plans, and indirect service data.⁹

The Canadian Medical Forum¹ has developed an approach¹⁰ to describing the role of the FTE in our complex system using a three-point model:

Health Canada Model to FTE: This model, developed in the early 1980s by Health Canada’s Health Information Division, utilizes fee for service billings to assess productivity. When applied to the physician workforce, it found 40% of Canadian physicians worked below benchmarks, 20% were within benchmarks, and 40% were above benchmarks. Other applications of the model¹¹ in 2003 found that 28 970 Family Practitioners converted to 24 207 FTE (0.83 FTE/physician), and 15 797 Specialists converted to 13 594 FTE (0.86 FTE/physician). The overall Canadian FTE was 0.84. The most concerning limitation to this model is the shift of Canadian physicians away from the fee for service process on which this model’s validity is based.

AFP Model to FTE: This model was developed after full recognition of the complexity of measuring productivity within an alternative funding plan (AFP) and the appreciation

¹ The Canadian Medical Forum is composed of representatives from academic, licensure, and advocacy medical organizations (e.g. Canadian Medical Association, Royal College of Physicians and Surgeons of Canada, Canadian Association of Internes and Residents, etc.). The Forum allows for opportunities for national collaboration, focus, and leadership in many areas, such as physician human resources.

that they are of increasing popularity. AFP's are complex models of productivity with incredible diversity and even more complex local modification. An AFP offered to one institution may, in turn, have differing applications and processes between and within clinical departments, divisions, and sites. At their core, this model of productivity measurement aims to include components of salary, sessionals, block funding, population based funding and primary care, capitation, alternative payment contracts, blended fees, rural emergency and on call payments, specialists emergency coverage programs, and incentive programs.

Other models to FTE: This model was developed with a goal of designing a standardized measure of productivity that would allow for reasonable comparison with health professionals outside of medicine. Essentially, it is a self-reported measure that weighs physician counts in relation to hours worked/week. Such simplicity comes with the cost of its inability to measure efficiency or effectiveness, or realistically link productivity and quality of care/patient satisfaction. In spite of these limitations, it is in various phases of exploration in Canada.¹²

One other model that is being applied in various Canadian jurisdictions is that of functional specialty assessment. At its essence, it captures what type of direct clinical service a physician performs as opposed to assuming their functional service based on their certification status. An early form of this approach found that 20% of specialist spent the majority of their time working outside of their certified specialty (usually in sub-specialty services) and that less than 1% of specialists were engaged in primary care.¹³ One regions' application of this model¹⁴ classified 1989 physicians by functional specialty and found that 10% of family physicians were practicing in areas other than family medicine, fewer physicians were practicing general internal medicine than were licensed, and many more physicians were practicing in internal medicine subspecialties as compared to the number of those actually licensed as sub specialists. A more recent use of this application reported that only 2.6% of specialists are engaged in administrative work more than 40% of the time¹⁵.

Another CIHI report utilized functional specialty assessment and applied it to the field of Family Practice¹⁶. This application suggested that family physicians had significantly reduced a number of core services in critical areas (inpatient care, surgical procedures and assists, and anaesthesia), and that there were important variation in trends by age, gender, and geography.

There are other measures under consideration in Canada, such as defining productivity as the output of any health human resource per unit of input. These efforts are at various stages of development and implementation.¹⁷

Of critical importance to front line physicians is a need to be both heard and supported as the complex health care system evolves. One report created tension when it suggested that ongoing evaluation of productivity of the existing physician workforce continue prior to any new investment in existing providers.¹⁸ Efforts at leadership and management must go hand in hand with efforts at sustainability.

Clearly, future measures of productivity will need to be even more sophisticated and multimodal. Task Force Two of the Canadian Medical Forum² emphasizes that these measures must account for direct and indirect service, assess comprehensiveness, recognize changing models of work, adjust for various physician factors, and be nimble enough to capture a broad array of workplace activity.

Recommendations for additional research on physician productivity

The Canadian Medical Forum has, in large part, addressed this issue in its landmark paper on physician resources¹⁹. Some key highlights of this report's many recommendations include:

Ongoing research – Canada has developed innovative and useful models of obtaining and analyzing data including the National Physician Survey, the Canadian Medical Association's Physician Resource Questionnaire, and the evolving templates of the Canadian Institute for Health Information. Clearly, these efforts should not only continue to provide longitudinal data, but they should also evolve to include more complex and relevant factors.

Cohort studies – It is of growing importance for Canada to fully appreciate the impact of the productivity of new graduates, women physicians, part time physicians, semi-retired physicians, and physician-parents, on the overall productivity of the profession.

Physician Health and Wellness – There has been a significant evolution in this domain in Canada over the past decade²⁰ and increasing descriptive data on the relationship between physician health and productivity. However, there is little formal data on the practice patterns of ill, impaired, or disabled physicians nor on the relationship between productivity and overall health and wellness of Canadian physicians.

Impact of new models of care – Several provinces have increasingly released new models of health care delivery that highlight group and team practice, use of non-physician providers or physician extenders, and increased use of technology. However, there is little longitudinal data on the impact of these innovations on physician productivity.

Policy and secular drivers affecting physician productivity in Canada

Legislation on work hours

There are no current legislative efforts to control the work hours of a physician in practice. There have been moves afoot by the profession to look more closely at setting recommended maximum work hours, and on-call hours in particular, but these have been largely unheeded or not supported by the profession as a whole. Post-graduate medical

² Task Force Two of the Canadian Medical Forum describes a major study in physician resources. It is funded by the federal government, with in-kind support from a number of medical organizations, and is being developed in parallel with similar efforts in nursing, pharmacy, and dentistry.

trainees (residents) have been more successful in negotiating reductions in their on-call and post-call workloads.

However, in response to policy activities in Europe, the Canadian Medical Association evaluated models of legislated workweeks. One model looked at a set maximum of 48 hours per week (not including on call duties), and the outcome was catastrophic. In short, this would result in the removal of an equivalent of 12 780 FTE physicians from the system. Clearly, this is not a model that either the Canadian public nor the profession is strongly interested in pursuing; Canada is monitoring these issues of legislated work hours carefully.²¹

Part-time employment

Data on part-time employment has been collected for a short period of time, but appears to reflect growing trends in the population as a whole, and younger physicians in particular, open and interested in part time work. 25% of all physicians without dependants worked less than 40 hours per week, a number that appears to be on the rise. A significant variable is the role of parenting, as 50% of female physicians with children fewer than 6 years of age, and 35% of female physicians with children 6 years of age and older work less than 40 hours per week. In addition, 10% of male physician-parents work part time and this appears to be rising.²²

Other models have looked at a reduced productivity rate of 10% to approach understandings of new models of work. The Canadian Medical Association ran a scenario where the overall effect of adjusting for the age and sex of physicians in 2020 and the age and sex of the future patient mix results in a 12.2 million fewer medical services being provided. A 10% decrease in productivity now will result in a additional shortage of 4600 physicians by 2010, compounding the shortage of 5800 anticipated using current models of projection. For surgery in particular, a shortfall is anticipated in 6 years with no decrease in productivity and by 2010 services required will exceed those available by 1.3 million, or a shortage of 834 surgeons.²³ Thus, it is essential that new models of productivity assessment and implementation carefully consider interest and necessity of part time employment, and consider options to buffer such losses (e.g. childcare services, parental leave policies and services, options for eldercare support).

Retirement age and age in general

Canada is facing significant events with respect to physician retirement. Retirement accounts for 17% of the decline in net physician supply. Almost a quarter of the workforce is within 10 years of an anticipated retirement age of 65 years. Even at an average anticipated retirement rate of 3.1% per year, 3800 physicians will exit the system by December 2005. For specialists the issue is alarming – one in ten plan to retire by the end of 2007.²⁴ Little has been done to prepare either the individual physician or the system as a whole for what will be nothing less than a massive loss of human resources. CMA projections suggest that at least 2000 more physicians must be trained per year in order to maintain the ratio of 1.8 physicians per 1000 population.²⁵ To complicate

projections, the maintenance of the physician population at this ratio does not account for the anticipated decreased productivity of successive generations of physicians, increased acuity and severity of patient needs, uptake of alternative funding plans with decreased clinical productivity, and a desire for part time status.

Sex also has a role in planning for retirement. Men continue to work longer than women (68 years of age and 54 years of age respectively), and in 2001-2002 34% of all female retirements were in the under 50 years of age cohort. While part of this accounts for parental leave, a sizable variance appears to be due to sex alone.

Age of retirement is also a complex issue. Some authors report that the age of retirees is actually rising, and has done so for the past two decades.²⁶ This may be, in part, due to pressures physician feel to maintain their practices in the absence of new graduates or in the face of limited retirement resources. In some provinces, there are mandatory retirement laws that can, and do, force hospitals to deny privileges to physicians at the age of 65. For hospital based physicians, particularly those in surgical or laboratory specialties, this leads to the loss of productive physicians willing to continue providing quality services. Yet another factor is the estimates of increased burnout and fatigue amongst the profession, particularly those approaching retirement ages. Indeed, other measures suggest physicians plan to retire close to the age of 63, and that 6.3% of all Canadian physicians plan to retire in the years 2005-2007.²⁷ Also with increased age there is a change in the scope of practice before complete retirement with a reduction in the provision of certain services and on call hours.

A myriad mix of sex, productivity, and practice style also complicates replacement. The National Physician Survey showed that patient care productivity is constant through all age cohorts to 55-64. Indirect productivity, however, in the 45-64 cohort is almost double that of the <35 cohort.²⁸ Indeed, a New Brunswick study suggests that 2.3-3 new physicians are required to replace every 1 physician preparing to retire from a large practice. These resources simply do not exist in current supply models, and both planners and the public are increasingly seeking ways of prolonging retirement while looking at the larger physician human resource puzzle.²⁹

Lifestyle expectations

The word lifestyle has been increasingly used to reflect the impact of increased awareness of physician health and wellness as well as the unique characteristics younger generations are bringing to the physician workforce.³⁰ It is a growing expectation that the workplace will be healthy and promote individual and professional sustainability.³¹ Indeed, the Royal College of Physicians and Surgeons recently embedded personal health and well being and a commitment to a sustainable practice in their core role of “Professional” in postgraduate medical education.³² Such efforts foster expectations related to safe working conditions, conflict resolution protocols, promotion of equity and equality, principles of ergonomics, access to nutritious food, adequate resources, and appropriate levels of security.

The Canadian Medical Association has developed models to account for the increased importance of physician health and well being. Using the assumption that new graduates are working at a level reflective of their desired balance between personal and professional lives, their Physician Resource Evaluation Template (PRET) created a scenario where all physicians over 40 years of age would be as productive as the current 36-40 year old cohort, and that the cohort between 50 – 60 would reduce their productivity reflecting partial retirement or entry in alternative funding plans. This model resulted in a net decrease in available FTE physicians by 5% by 2021 or a need for the country to produce 3338 FTE physicians over and above current production rates.³³

It is also not just the younger cohorts of physicians now interested in balance and health. Increasingly, programs for the boomer and traditional generations of physicians related to health and well being are becoming more popular.³⁴ The impact of this shift in productivity related attitudes is not yet fully appreciated in the Canadian context.

Changes in physician activity over time

The Canadian Medical Association Masterfile (1994-2003) reports that in 2003 the nation had 60 809 active physicians. This was an 11.7% increase from the previous decade and the overall balance between family practitioners and specialists was close to 50:50.

In spite of this superficially robust picture, the view in the trenches was much more complex. Physicians are reporting changes to their practice to accommodate a desire to have a more balanced lifestyle, and are doing so in greater volume. A study of family physicians indicated that they distanced themselves from on call obligations, obstetrical services, complex mental health care, some are moving to super-specialized offerings of service (obesity, eating disorders, women's health, sports medicine, cosmetic clinics, psychotherapy)³⁵ or walk in clinics³⁶. In combination with increased retirement, post-graduate exits, and emigration are described as diluting the physician work force.³⁷

Specialists appear to be working longer hours and providing more direct services than ever – up to 13 more hours per week.³⁸ Family physicians do not appear to be working longer hours in direct services, but their indirect service volume has increased by roughly 1 hour per week. The average Canadian physician appears to be working 52.4 hours per week, with an increasing portion of time spent on administration and paperwork.³⁹

Family physician practice is also evolving rapidly. Fewer new graduates are demonstrating an interest in obstetrics, inpatient care, nursing home care, emergency departments, or surgical/anaesthesia assistance. Rather, they are more interested in walk in clinics and other forms of 'office only' practice.⁴⁰ This loss of comprehensiveness has resulted in the creation of "orphaned patients" or those who have no family physician to play a role in inpatient care or post hospital follow up.

Sex

Canada is also admitting more women into medicine than ever, with rates as high as 85% in some first year Canadian medical school classes. Currently, 40% of the members of the youngest cohort of physicians are women, and they will compose 40% of the physician workforce by 2015.⁴¹

Finally, physicians are committed to the provision of world-class patient care, and the public rightly comes to such high expectations as well. Overall productivity will be influenced by the increasing complexity of care, including time dedicated to patient assessment and investigation, health teaching and illness prevention, documentation, and collaboration with other care providers.

These forces are anticipated to lead to a continual decrease in the number of FTEs relative to the number of physicians in coming decades.⁴² The primary rationale for this is that women tend to practice less intensively and are less productive in the medical workplace, overall, compared to their male counterparts.⁴³ In addition, women are more likely to enter family practice, followed by non surgical specialties (psychiatry, paediatrics, anaesthesia) with only obstetrics and gynaecology the only surgical specialty preferred by more women than men.⁴⁴ Productivity measures in these areas in particular, will require careful monitoring and planning.

Canadian strategies to increase physician productivity

Increased training

Canada's medical schools have borne witness to a full pendulum of human resource policy in a relatively short period of time. In the early 1990's, provincial governments selectively implemented a number of policy recommendations related to physician supply⁴⁵, including a widely criticized decision to reduce undergraduate enrollment by 10%.⁴⁶

The impact on medical education was remarkably complex, and this particular decision has largely been the sole scapegoat for Canada's physician resource challenges. By 1997-1998, enrollment reached a low of 1577 per annum, and virtually every medical organization in the nation called for a nimble and sizable reversal of this trend⁴⁷. The Association of Faculties of Medicine of Canada reported that by 2001 annual enrollment had returned to pre-1991 levels, and by 2003-2004 they reached 2096 per annum (and growing).⁴⁸

Female students accounted for 60% of the new influx of trainees, and this is hypothesized to emphasize the need to highlight gender specific productivity measures in future workforce planning.⁴⁹ Due to changes in medical school admission policies and standards, the age of entrants is rising compared to prior cohorts⁵⁰, and there are new and rapidly emerging trends in faculty-specific approaches to health and wellness, parental leave, and part time training. Finally, medical education for this cohort is the most expensive in Canada's history, and researchers have expressed concern over the impact of rising debt load on this generations' career choice and productivity patterns.⁵¹

The impact of this cohort's demographic on the profession is still largely unknown but recent reports suggest that every physician entering practice will be less productive. While there are many variables in that particular equation, there is evidence to support a generational pattern of desiring a better work-life balance; more awareness of physician health and well being; openness to join group practice models, interest for alternatives to fee for service, and part time work.⁵²

New models of medical education^{53 54} are also developing - many of which highlight collaborative and interdisciplinary education and training. There are also distributed sites of medical education⁵⁵ and a new medical school⁵⁶ designed to encourage physicians to practice in less urban settings. There is a frank and open discussion in Canadian medical education as to the link between training students in these models and the possibility of increasing future productivity, but little research into such relationships is currently underway.

In spite of these complex and massive efforts, Canada will not see the contribution of these future physicians for 6 – 10 years depending on the specialty of the trainee.⁵⁷ This has also resulted in a marked increase in the academic missions of teaching hospitals, and contributed to the increasing productivity strains (both academic and clinical) in that particular sector.

Increased importation

In addition to a major increase in undergraduate enrollment, Canada has also developed and implemented new policies with respect to the importation of physicians. For many years, Canada's overall efforts in this area lacked efficiency and systemic planning. However, many provinces⁵⁸ are rapidly developing new programs to identify potential immigrants, assess their clinical competence, facilitate certification and licensure, and integrate them into the existing physician productivity pool. These efforts have been complimented by a national program that is providing funding and support for implementation of key strategies designed to increase the numbers of international medical graduates in practice in Canada.⁵⁹

However, such efforts also have their own controversies and challenges. Many of these new Canadian physicians do contribute to the physician productivity pool in rural areas (often under contractual obligation) but do so on a short term basis as they often relocate to urban centres.⁶⁰ It is also essentially unknown if generational and sex related influences on productivity will also be seen in this diverse and multicultural population.

Developing new professionals and new professional roles

Throughout Canada, there are many efforts to enhance the role of new professionals or define new roles for the physician and paramedical professionals. Canadians appear open and interested in non-physician providers of health services that range from a myriad of complementary/alternative providers^{61 62} to more traditional providers such as nurses and

pharmacists. The Canadian Medical Association has commented extensively on such innovations in scope of practice⁶³ including the need for legislative and tort reform to allow for scopes of practice to evolve while still ensuring the overall protection of the public.

Midwives and nurse practitioners are both health professionals that have moved into practice in Canada at an increasing pace. More recent innovation has been the emergence of physician assistants, hospitalists, and mental health clinicians (non-MD providers providing in-hospital mental health service, primarily in emergency psychiatry) in the Canadian workplace. While all of these professionals are growing in volume, and in professional affiliation and activity, their exact impact on the productivity (and cost-effectiveness) of the Canadian health system is largely unknown.

Investment in technology

In the early part of this century, Canada was described as remarkably behind other OECD countries in the area of diagnostic and treatment technology, and the consequential impact on physician productivity was reported as significantly negative.⁶⁴ At that time, it was estimated that almost 2 billion dollars over three years would be required to bring the nation up to par.⁶⁵

By 2005, well over 1 billion dollars have been invested in the Canada Health Infoway project³, and its primary task of a national electronic health record. The impact on productivity of physicians is being studied in early impact disciplines such as emergency medicine and radiology, and early results suggest marked improvements in productivity, quality, and efficiency.⁶⁶ Canada has committed ongoing resources to its infoway project, as well as resources to study the impact of project implementation on the productivity of the health system.

Telehealth is another complex issue in Canada. By producing a virtual connection between patient and provider, health care can be offered over great distances in an increasing variety of disciplines. The actual impact on productivity and efficiency remains unclear for the profession as a whole; however, there appear to be some improvements in productivity for certain disciplines such as psychiatry and radiology⁶⁷. Clearly, more study is required.

Restructuring clinical systems

Health system restructuring continues across Canada, as wave after wave of reform and revitalization ebbs and flows. There are several themes that have been in play for many years, and one factor that is new and potentially explosive.

³ Fostering and accelerating the development and adoption of electronic health information systems with compatible standards and communications technologies on a pan-Canadian basis with tangible benefits to Canadians. *Infoway* will build on existing initiatives and pursue collaborative relationships in pursuit of its mission.

Integration – Virtually every effort at reform has a major commitment to integration and collaboration amongst all health professionals. This has been primarily focused on primary care, and there have been many models of integration rolled out across the nation. The impact on productivity is under investigation, but early studies suggest that quality of care and patient satisfaction may be more prone to increase rather than individual physician productivity.

Primary care renewal – Continues in an ongoing fashion across Canada. In fall, 2005, a major national media campaign is being launched to facilitate the public's appreciation of the importance of this sector, the successes already accomplished, and the importance of team-based care related to health promotion and disease prevention.

Legal challenges to the existing system - In 2005, the Supreme Court of Canada ruled⁶⁸ that the practice of prohibiting patients from using private financing and private insurance where wait times are excessive is unconstitutional. The President of the Canadian Medical Association described this decision as a "...stinging indictment of the failure of governments to respond to the mountains of studies and years of research with real action for our health care system."⁶⁹ For many Canadians, this decision has been quickly translated into an understanding that the health care system is now open to the private sector, and that all stakeholders must now enter into a vigorous debate into the structure, nature, and management of a blended private/public model of care. The Court has given the system some time to respond to the decision, but major change in the health care system is coming and coming soon. How this will impact on physician productivity, in the Canadian context, is an unknown and likely complex variable.

New payment systems

Payment systems in Canada were once fairly uniform and within the confines of a fee for service model. However, models of capitation, salary, and various blended models are quickly gaining favour amongst funders and physicians, and alternative funding plans have been accepted by 11.7% of FTE physicians in 2003⁷⁰ and the fee for service model of delivery is projected to continue a downward spiral in popularity.⁷¹ Again, interest in a blended model appears to be related to both age and sex, as both younger physicians and women physicians hold the value of balance in particular regard.

In many provinces, the intergenerational tensions around remuneration focus on highly independent model (fee for service income, independent practitioner model) model being more popular amongst older physicians and a highly balanced model (blended income, employee model) including benefits being more popular amongst younger physicians. This speaks to the need to develop models of remuneration that are individually tailored to the needs of the individual physician and workplace as much as possible – no small feat for the multiple stakeholders involved.

Early research on these efforts suggests that there may be little impact on productivity in academic settings, and that may be due in large part to resource constraints in academic sectors. In addition, the impact on productivity varied significantly across disciplines and

settings.⁷² There are also studies that suggest that alternative models of remuneration results in less productivity than fee for service models,⁷³ with some wait lists increasing as much as 25%.⁷⁴ which is useful for recruitment and retention of younger physicians and women physicians, but is of concern in an era of growing access problems.

Physician Health and Well Being

Canada is considered a world leader in physician health and well-being.⁷⁵ Every province and territory has access to a physician health program, many academic centres are develop site-specific physician wellness programs, formal pedagogy in physician health is now required in specialty training programs, and national centres and educational programs are having an influence on medical leadership, management, and policy. Indeed, the theme of balance and health appears to be one of the most relevant issues in any discussion on physician productivity in Canada.

The Canadian Medical Association Centre for Physician Health and Well being reports some alarming statistics: 50% of Canadian physicians consider leaving medicine, 46% are moderately to severely burned out, 18% are depressed with 2% reporting suicidal thoughts, 45% report significant marital difficulties, 25% consider getting help, and only 2% actually do receive clinical support and care.

The National Physician Survey noted that 86% of physicians are satisfied with their relationships with patients – but only 66% were satisfied with their professional life, and only 50% satisfied with work life balance. This has significant relevance as unsatisfied physicians are planning on making major reductions to their productivity in hope of restoring balance and personal health.

The impact on productivity due to these factors is largely unknown, although it is suggested that some physicians work even harder as they approach more advanced stages of isolation and burnout. The Canadian Physician Health Network has indicated much interest in appreciating the impact of ill health on patient outcomes, quality of care, and physician productivity, as well as evaluating the impact of physician health programs on productivity and physician sustainability.

Conclusion

Canada is moving forward with multiple efforts in physician resource planning in the face of major fiscal, legislative, demographic, and supply challenges. There continues to be a strong emotional and political commitment to the system's core principles and values, but recent efforts to ensure its success are made complicated by recent rulings by the Supreme Court. Younger physicians and women physicians are driving massive sociological changes in workplace attitudes and personal health and balance. Retirement is also an issue of particular concern as sizable numbers of physicians are expected to retire in the next few years. These trends will have massive impact on Canada's health care system particularly given current supply regulation. Finally, the financial

commitment to the ongoing maintenance, modernization of infrastructure, and support of paramedical staff is of ongoing concern and of great expense.

There are now complex and significant policy efforts taking place within municipal, provincial/territorial, and national systems. There are also equally complex and significant policy issues arising from patients and their communities, practicing physicians and physicians in training, and the many institutions involved in training, education, delivery, evaluation, and funding of health care. Productivity will continue to be an essential element in physician resource planning, and Canada appears poised to enter a new phase of development driven not only by these complex issues but also by recent legal decisions.

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