

EFFICIENCY AND THE PURSUIT OF PATIENT SAFETY

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Efficiency and patient safety are two important intersecting health policy goals. Efficiency should not be exploited for political expediency, but instead balanced against concerns with patient safety. Too often, the concept of efficiency has been used to justify cost saving or cost containment measures that create further adverse effects. There is clear evidence that nurse-to-patient ratios have a direct impact on patient safety, but the government has resisted staffing more nurses on the basis of cost. This causes a greater cost in terms of human suffering and avoidable medical errors. Therefore, efficiency-based claims made by the government should be viewed with caution. Governments should establish a solid evidentiary foundation before advancing any efficiency claims in the health sector.

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I. INTRODUCTION

This article explores the intersection of two important health policy goals: efficiency and patient safety. Reducing medical errors has been a constant theme in Canadian health policy for many years, but efficiency-based critiques may arise when policies designed to improve patient safety are accompanied by significant costs. Here, I argue that while efficiency is crucial to the sustainability of the Canadian health care system, checks must be in place to ensure that it is not used solely for political expediency, but rather is appropriately balanced against concerns with patient safety. Specifically, I address efficiency-related justifications for avoiding investments in the health workforce. Because the human toll of avoidable adverse events is often severe and immeasurable, I argue that we should view efficiency-based justifications by governments with caution, when those decisions create a risk of adverse events. After outlining patient safety and efficiency as policy goals, I elaborate on the need for mechanisms that balance these two goals.

II. PATIENT SAFETY AS A HEALTH POLICY GOAL

Medical errors have attracted increased scrutiny in Canada over the past ten years.¹ Adverse events may be the result of many causes, such as medication errors, poor hygiene,

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¹ See e.g. Theresa Boyle, "Nurses Say Hospital 'Dangerous,' but CEO Denies Charge," *The Toronto Star* (28 February 2014), online: <https://www.thestar.com/life/health_wellness/2014/02/28/humber_river_hospital_dangerous_says_nurse_association_ceo_denies_the_charge.html>; Vera-Lynn Kubinec, "Medication Mix-Up Leaves Cancer Patient, Wife Shocked," *CBC News* (3 April 2014), online: <www.cbc.ca/news/canada/manitoba/medication-mix-up-leaves-cancer-patient-wife-shocked-1.2596397>; Tom Blackwell, "Inside Canada's Secret World of Medical Error: 'There is a Lot of Lying, There's a Lot of Cover-Up,'" *National Post* (16 January 2015), online: <news.nationalpost.com/health/inside-canadas-secret-world-of-medical-errors-there-is-a-lot-of-lying-theres-a-lot-of-cover-up>; Gary Mason, "Wildrose Leader Jean Spurred by Son's Tragic Medical Experience," *The Globe and Mail*, (22 April 2015), online: <www.theglobeandmail.com/news/alberta/alberta-wildrose-leader-brian-jean-enters-critical-stretch-of-campaign/article24070378/>.

or inadequate infection control. The landmark 2004 Baker-Norton study found that 7.5 percent of Canadian hospitalizations — or about 185,000 patients a year — were associated with at least one adverse event.² It found that almost 40 percent of those errors were preventable. In other words, up to 23,000 patients die each year in Canadian hospitals due to preventable errors.

In the decade since the Baker-Norton study, Canadian governments, researchers, and patient safety advocates have gradually increased reporting and awareness of medical errors and other adverse events. Comprehensive nationwide databases of adverse events are still in the evolutionary stage, but efforts by the federal government and other national patient safety bodies have generated important knowledge of the extent of errors and the harms they cause. The volume of data collected on adverse events in Canada has increased, and there have been further studies of medical errors in various care settings. In 2004, the Canadian Institute for Health Information (CIHI) focused on patient safety in its annual report³ and established a Patient Safety Division to oversee various projects, which gather adverse event data from Canadian hospitals and other institutions.⁴ These projects include the Canadian Hospital Reporting Project, the Hospital Standardized Mortality Ratio project,⁵ and the National System for Incident Reporting.⁶ CIHI publishes some adverse event data from these projects on its website.⁷ Health Canada has also established a Medication Incident Reporting and Prevention System.⁸

Provinces have also begun collecting patient safety data and making it publicly accessible. In Ontario, for example, hospitals are now required to report the occurrence of a series of eight patient safety indicators including the following:

- Clostridium difficile (*C. difficile*);
- methicillin-resistant Staphylococcus aureus (MRSA);
- vancomycin-resistant Enterococci (VRE);
- hospital Standardized Mortality Ratio (HSMR);
- rates of ventilator-associated pneumonia;
- rates of central line infections;
- surgical site infection prevention percentage;

² G Ross Baker et al, “The Canadian Adverse Events Study: The Incidence of Adverse Events Among Hospital Patients in Canada” (2004) 170:11 CMAJ 1678.

³ Canadian Institute for Health Information, *Healthcare in Canada: 2004* (Ottawa: CIHI, 2004) at 11, online: <<https://secure.cihi.ca/estore/productFamily.htm?pf=PFC375&lang=en&media=0>>.

⁴ Canadian Institute for Health Information, “Patient Safety,” online: <www.cihi.ca/cihi-ext-portal/internet/en/tabbedcontent/health+system+performance/quality+of+care+and+outcomes/patient+safety/cihi010649>.

⁵ Lauren Vogel, “Landmark Tool Assesses Canadian Hospitals” (2012) 184:8 CMAJ 886, online: <www.cmaj.ca/content/184/8/866.full>.

⁶ Canadian Institute for Health Information, “The National System for Incident Reporting: Program Overview” (Spring 2011), online: <www.cihi.ca/CIHI-ext-portal/pdf/internet/NSIR_PROGRAM_OVERVIEW_EN>.

⁷ Canadian Institute for Health Information, “Your Health System,” online: <yourhealthsystem.cihi.ca/#/indicators/005/hospital-deaths-hsmr>.

⁸ The Canadian Medication Incident Reporting and Prevention System (CMIRPS) is “a collaborative pan-Canadian program of Health Canada, the Canadian Institute for Health Information (CIHI), the Institute for Safe Medication Practices Canada (ISMP Canada) and the Canadian Patient Safety Institute (CPSI). The goal of CMIRPS is to reduce and prevent harmful medication incidents in Canada”: see Canadian Medication Incident Reporting and Prevention System, “The Canadian Medication Incident Reporting and Prevention System,” online: <www.cmirps-scdpim.ca/?p=14>.

- hand hygiene compliance among health care; and
- surgical safety checklist compliance.⁹

As well, in 2011 the Ontario Ministry of Health and Long-Term Care issued a directive that hospitals must report “critical incidents”¹⁰ involving medications and intravenous fluids to CIHI’s National System for Incident Reporting.¹¹ The province reports these results online through the website Health Quality Ontario.¹² As well, the Ontario Medication Incident Database (OMID), supported by the Ontario Ministry of Health and Long-Term Care, has been collecting data on medication incidents since 2004.¹³ Quebec has similar requirements: hospitals are required to disclose adverse event data to the province,¹⁴ and both the Ministry of health¹⁵ and some individual hospitals publish such data on their own websites.¹⁶ Nova Scotia¹⁷ and Saskatchewan¹⁸ also have legislation requiring health authorities to compile and report data on adverse events. Patient safety groups such as the Canadian Patient Safety Institute¹⁹ (CPSI) and the Institute for Safe Medication Practices Canada (ISMP-Canada)²⁰

⁹ Effective December 2012, patient safety indicator results, as reported by Ontario hospitals, as well as other patient safety information, are available on Health Quality Ontario’s (HQO) website. Publicly reporting patient safety indicators aligns with HQO’s mandate to monitor and report on Ontario’s health care system to the public: Health Quality Ontario, “Hospital Care Sector Performance,” online: <www.hqontario.ca/system-performance/Hospital-Care-Sector-Performance>.

¹⁰ *Excellent Care for All Act*, SO 2010, c 14, s 8(2), amending the *Public Hospitals Act*, RSO 1990, c P.40; *Hospital Management Regulation*, RRO 1990, Reg 965, s 1(1) defines a “critical incident” as:

[a]ny unintended event that occurs when a patient receives treatment in the hospital,

(a) that results in death, or serious disability, injury or harm to the patient, and

(b) does not result primarily from the patient’s underlying medical condition or from a known risk inherent in providing the treatment.

Section 2 of the Regulation requires disclosure and reporting of critical incidents.

¹¹ Ontario Ministry of Health and Long-Term Care, “Guidelines for Critical Incident Reporting” (1 July 2010), online: <www.health.gov.on.ca/en/pro/programs/ecfa/docs/guidelines_cir.pdf>.

¹² See “Hospital Care Sector Performance,” *supra* note 9.

¹³ The OMID is a component of the Ontario Medication Safety Support Service (MSSS) and ISMP Canada’s Medication Incident and Near Miss Reporting Program. Data on medication errors are available online. See e.g. Institute for Safe Medication Practices Canada, “Ontario Hospital Critical Incidents Related to Medications or IV Fluids Analysis Report: January to December 2013” (Toronto: ISMP, 2014), online: <https://www.ismp-canada.org/download/ocil/ON_Critical_Incidents_Analysis_Report_3JUL2014.pdf>.

¹⁴ *Act Respecting Health Services and Social Services*, RSQ, c S-4.2, ss 8, 183.1, 183.2, 233.1, 235.1; “Quebec Makes Medical Errors Public,” *CBC News* (6 December 2011), online: <www.cbc.ca/news/canada/montreal/quebec-makes-medical-errors-public-1.1124587>.

¹⁵ Data since 2011 are found at Quebec, ministère de la Santé et des Services sociaux, *Rapport semestriel des incidents et accidents survenus lors de la prestation des soins et services de santé au Québec: Période du 1er octobre 2013 au 31 mars 2014*, online: <msssa4.msss.gouv.qc.ca/fr/document/publication.nsf/961885cb24e4e9fd85256b1e00641a29/c98781ce6012799785257d8100527734?OpenDocument>.

¹⁶ See e.g. Jewish General Hospital, “Total Reported Incidents and Accidents” (2016), online: <www.jgh.ca/en/qti/IncidentsAccidents?mid=ctl00_LeftMenu_ctl00_TheMenu-menultem010>.

¹⁷ *Patient Safety Act*, SNS 2012, c 32, s 4(2); *Patient Safety Reporting Regulations*, NS Reg 55/2013, s 4; Nova Scotia, Department of Health and Wellness, “Public Reporting on Patient Safety,” online: <nova-scotia.ca/dhw/qps/public_reporting.asp>.

¹⁸ *The Regional Health Services Act*, SS 2002, c R-8.2, ss 58(1)–(2); *The Critical Incident Regulations, 2016*, RRS, c R-8.2, Reg 10.

¹⁹ Canadian Patient Safety Institute, online: <www.patientsafetyinstitute.ca/English/Pages/default.aspx>; Philip Hassen et al, “The Canadian Patient Safety Institute: Building a Safer System and Stronger Culture of Safety” (2006) 48:7 *BC Medical J* 334, online: <www.bcmj.org/article/canadian-patient-safety-institute-building-safer-system-and-stronger-culture-safety>.

²⁰ Institute for Safe Medication Practices Canada, “Medication Safety Support Service (MSSS),” online: <www.ismp-canada.org/msss.htm>; Institute for Safe Medication Practices Canada, “Web-Based Analyze-Err: Medication Incident and Near Miss Reporting Program,” online: <www.ismp-canada.org/err_report.htm>.

have also gathered data on adverse events and published their findings.²¹ The Canadian Patient Safety Institute (CPSI) has also formulated adverse event disclosure guidelines for Canadian health care facilities.²²

III. EFFICIENCY IN CANADIAN HEALTH POLICY

Efficiency, long the mantra of public administration, has a deep influence on Canadian health policy. Controlling public spending has become a more or less constant theme of federal and provincial politics since the 1990s; fears of deficit spending persist, as does a reluctance to increase the tax burden on businesses and individuals. However, population growth and economic uncertainty continue to place a heavy demand on a wide range of social programs funded by governments. Health care remains the largest expenditure for governments, but resources are also needed in public schools, universities, social service agencies, and municipalities. With increasing concerns about domestic security, governments have also faced an upsurge in calls for more funding for police services.

Within the health care system, economic pressures arise from the many competing demands for health services, the aging population, and the ongoing demands of physicians, nurses, and other health professionals for increased compensation. It is sometimes argued that greater efficiency will allow these competing priorities to be better met without increasing overall spending. A 2014 study by the United States-based Commonwealth Fund ranked Canada next to last of eleven nations surveyed in health system efficiency, better only than the US.²³ Canada's low ranking on efficiency was repeated on individual indicators, including the following:

- total expenditures on health as a percentage of gross domestic product: 7th of 11 (meaning that Canada has one of the highest expenditures);
- percentage of national health expenditures spent on health administration and insurance: 4th of 11;
- visited Emergency Department for a condition that could have been treated by a regular doctor, had he or she been available: 11th of 11;
- medical records or test results did not reach doctor's office in time for appointment, in past two years: 10th of 11;

²¹ The CPSI has also funded studies of adverse events, including a 2012 study of pediatric care: Canadian Patient Safety Institute, *Canadian Paediatric Adverse Events Study* (2013), online: <http://www.patient-safetyinstitute.ca/en/toolsResources/Research/commissionedResearch/PaediatricAdverseEvents/Documents/CPSI_Canadian_Paediatric_Adverse_Events_doc_March%202013_English_Final.pdf>. See also Anne G Matlow et al, "Adverse Events Among Children in Canadian Hospitals: The Canadian Paediatric Adverse Events Study" (2012) 184:13 CMAJ 709.

²² Canadian Patient Safety Institute, *Canadian Disclosure Guidelines: Being Open with Patients and Families* (2011), online: <www.patientsafetyinstitute.ca/en/toolsResources/disclosure/Documents/CPSI%20Canadian%20Disclosure%20Guidelines.pdf>.

²³ The Commonwealth Fund, *International Profiles of Health Care Systems: 2014* (January 2015), online: <www.commonwealthfund.org/~media/files/publications/fund-report/2015/jan/1802_mossialos_intl_profiles_2014_v7.pdf>.

- sent for duplicate tests in past two years: 7th of 11;
- hospitalized patients went to ER or were re-hospitalized for complication after discharge: 10th of 11.²⁴

Canadian governments have embarked on a wide range of policies in pursuit of the efficiency/performance imperative. However, as we shall see, these policies are arguably more about cost-containment than improving efficiency. Beginning at the highest level of governance, the federal government has been efficiency-driven in changing how it calculates the amount of funding transferred to provinces per the *Canada Health Act's* five funding criteria.²⁵ Most recently, in 2014 the Harper Government implemented per capita-based funding in place of the equalization-based models of funding under the former Canada Health Transfer program that provided subsidies to assist smaller and less wealthy provinces.²⁶ This means that provinces like Nova Scotia with higher health care needs (due, for example, to an aging population and higher morbidity) must do more with less (namely, become more efficient) or else cut back on their delivery of health care services to their population. Further, to promote efficiency, the CIHI in 2012 issued a “performance measurement framework” to provinces and health regions.²⁷ In this framework, CIHI posited three health system goals: (1) promoting population health; (2) providing services that meet the needs and expectations of the population; and (3) “value for money,” which CIHI described as

related to the other two since it measures the level of achievement of these goals compared with the resources used. Therefore, value as defined here is concerned with the ability of the health system to balance the allocation of resources to obtain the best outcomes (health status, health system responsiveness and equity) for the resources used.²⁸

Efficiency has similarly dominated provincial health policy. With health care spending absorbing between 40 and 50 percent of total provincial spending in most provinces, this is not surprising. In Ontario, the 2012 Drummond Report on public service reform said that “quality and efficiency go hand in hand” in the health context.²⁹ Provincial ministries of health now prepare and publish multi-year “business plans” or “service plans” that define performance indicators and set efficiency and performance targets; Alberta³⁰ and British

²⁴ *Ibid* at 23.

²⁵ *Canada Health Act*, RSC 1985, c C-6, s 7. The funding criteria are public administration, comprehensiveness, universality, portability, and accessibility.

²⁶ Gregory Marchildon & Haizhen Mou, “A Needs-Based Allocation Formula for Canada Health Transfer” (2014) 40:3 *Can Pub Pol'y* 209.

²⁷ Canadian Institute for Health Information, “A Performance Measurement Framework for the Canadian Health System” (Ottawa: CIHI, 2012), online: <https://secure.cihi.ca/free_products/HSP-Framework-ENweb.pdf>.

²⁸ *Ibid* at 4 [footnote omitted].

²⁹ Ontario Ministry of Finance, Commission on the Reform of Ontario’s Public Services, *Public Services for Ontarians: A Path to Sustainability and Excellence* (Toronto: Queen’s Printer for Ontario, 2012) at 145, online: <www.fin.gov.on.ca/en/reformcommission/chapters/report.pdf>.

³⁰ Alberta Health, *Health System Outcomes and Measurement Framework* (Edmonton: Government of Alberta, 2013), online: <www.health.alberta.ca/documents/PMIS-Outcomes-Measurement-Framework-2014.pdf>; Alberta Health Services, “Performance Measures,” online: <www.albertahealthservices.ca/performance.asp>; Alberta Health Services, *AHS Annual Performance Report: 2013-14* (9 October 2014), online: <www.albertahealthservices.ca/assets/about/publications/ahs-pub-pr-2013-14-dashboard.pdf>.

Columbia³¹ are typical in this regard. Specific efficiency-driven reforms have included changes to primary care delivery, such as physician payment methods, and a shift to more team-based models of care. Provincial governments have the most power to contain costs in the hospital sector, where they either directly control hospitals through regional health authorities or through funding agreements. In this regard, provinces are starting to change how they fund their public hospitals. In 2012, for example, Ontario unveiled a new health care plan that included a shift in hospital funding from global budgets to a mixture of capitation and activity-based funding. In line with hospital funding reform have been efforts to shift more services, once provided in hospitals, out to the home care and community care sectors (which frequently shifts spending from the public to the private sectors). As well, “efficiency” has driven a rise in the use of independent health facilities and private contracting firms to deliver many diagnostic and treatment services. Such firms provide services under contract with hospitals, regional health boards, and provincial governments.

The constant drive to be more efficient, or at least to contain public expenditures, is transmitted from provincial and regional levels of governance down to the senior and mid-level managers responsible for operating acute care hospitals. Hospitals, whilst arguably no longer the centrepieces of the health care system, still remain a fundamental bedrock to the delivery of health services. In this role, they are being asked to treat increasingly complex conditions and deliver increasingly complex care at the least cost possible.

Efficiency has also fed into the policy discourse about how many providers from each health profession are needed and how much “output” to ask of them. In 2002, the foundational Romanow³² and Kirby³³ Reports echoed the need for health human resource (HHR) recruitment, but also began to call for greater efficiencies in delivery and more productivity by health professionals. The Romanow Report identified the looming HR challenges as a shortage of providers, barriers between professional scopes of practice, inefficiencies in the organization of work, and the lack of “quality workplaces” for health professionals. Speaking of nurses, the Romanow Report depicted the “quality workplace” challenge as follows:

For nurses especially, quality of work life is a serious concern. Morale has declined substantially and nursing organizations point to this as one of the reasons for a significant number of nurses choosing to leave their profession. They also suggest that the persistent low morale has an impact on the quality of patient care. Employers, unions and professional organizations are addressing these issues, but, in recent years, the relationships between these organizations have been less than positive and strikes have been regular occurrences in almost every part of the country.³⁴

³¹ British Columbia, Ministry of Health, “Setting Priorities for the B.C. Health System” (February 2014), online: <www.health.gov.bc.ca/library/publications/year/2014/Setting-priorities-BC-Health-Feb14.pdf>; British Columbia, Ministry of Health, *2015/16 – 2017/18 Service Plan* (February 2015), online: <www.bc.budget.gov.bc.ca/2015/sp/pdf/ministry/hlth.pdf>.

³² Government of Canada, Commission on the Future of Health Care in Canada, *Building on Values: The Future of Health Care in Canada* (Ottawa: Commission on the Future of Health Care in Canada, November 2002), online: <www.publications.gc.ca/site/eng/237274/publication.html> [Romanow Report].

³³ Standing Senate Committee on Social Affairs, Science and Technology (Hon Michael JL Kirby, Chair), vol 6, *The Health of Canadians: The Federal Role: Final Report* (Ottawa: Senate of Canada, October 2002), online: <www.parl.gc.ca/Content/SEN/Committee/372/soci/rep/repoct02vol6-e.pdf> [Kirby Report].

³⁴ Romanow Report, *supra* note 32 at 94.

Yet while recommending investments to remedy these problems, the Romanow Report cautioned against a misuse of new spending on health human resources:

[T]he Commission strongly feels that the additional funds should not become a target for increasing salary pressures from health care providers. There is a serious political risk to all parties — governments, health care providers and their organizations, and regional health authorities — if the bulk of additional funds simply goes to pay more for the same level of service, the same access, and the same quality. This simply will not be acceptable to Canadians.³⁵

The 2002 Kirby Report also called for measures to promote recruitment of health professionals, but put greater emphasis on the need for more productivity by those professionals.³⁶

Whilst both the Romanow and Kirby Reports highlighted the importance of striking a balance between investments in human resources and meeting efficiency goals, most of the foregoing initiatives are designed to contain the increase in costs in the system at a time when demand for health services continues to rise due to an aging population. Governments have called these measures efficiency-driven, but they ultimately reduce to measures that disguise funding restraint as structural reform. This understanding of efficiency is more rhetorical than real, one offered after the fact and with little evidentiary basis to believe that the actual costs and benefits claimed will arise as forecasted. In my view, using the rhetorical power of efficiency in this way only distracts from the real political choice that is being made: to forego investment in more health professionals in favour of “innovation” strategies that seek to increase productivity — efficiency, in other words — with the same level of resources.

IV. EFFICIENCY IN THE PATIENT SAFETY CONTEXT

When efficiency is deployed in this tactical political manner, it can create real risks to patients if extended to discourse on measures proposed to improve patient safety. Granted, efficiency is not inherently hostile to patient safety, indeed, they can in some respects be seen as harmonious. For instance, efficiency can theoretically promote patient safety by freeing up resources that can in turn be used to hire more nurses and provide better working conditions for them, or for other patient safety measures. Conversely, improvements to patient safety could improve efficiency inasmuch as it represents a good health outcome in the performance equation. Each concept could also claim to envelop the other within its meaning. Patient safety advocates would argue that efficiency is not about goals, only means, and that efficiency is implied in every public sector endeavour. Therefore, that efficiency need not be given additional weight in determining whether or not a particular patient safety proposal should be adopted. Conversely, efficiency proponents might claim that patient

³⁵ *Ibid* at 105.

³⁶ Kirby Report, *supra* note 33 at 187. Senator Kirby focused his comments on physicians’ productivity, but extended this view to nurses as well. He concluded:

Still, not enough is known about the productivity of nurses and what could be done to improve it.... The Committee believes that the same type of productivity research that is proposed with respect to physicians is also needed in order to understand better how nurses spend their time at work, and what institutional barriers stand in the way of improved productivity. This is why the recommendation made above includes all health care professionals (*ibid*).

safety is already accounted for within the performance analysis, subsumed under the broader rubric of “quality.” Thus, there is no pure dichotomy between patient safety and efficiency.

At the same time, efficiency acts to constrain decisions that call for more funding to address staffing levels, which affect patient safety. Perhaps the best illustration of this impact is found in government resistance to boosting the numbers of nurses, physicians, and other providers in the system. There is now a strong scientific consensus that nursing workload is a strong determinant of the rates of adverse patient outcomes, medical errors, and adverse events. Not only are there many individual studies connecting nursing workload to rates of medication and other kinds of errors, but more importantly, there is also now a critical mass of systematic reviews of such studies.³⁷ Despite this evidence, governments continue to turn toward efficiency-driven workplace redesign strategies and away from more costly strategies to grow the size of the health care workforce. Arguments of “efficiency” (but really cost-containment) act to divert attention from policies that would increase the number of nurses and doctors in the system and toward those that promise to improve patient safety at no additional cost. A prominent instance of this preference for efficiency-driven solutions has been the adoption of “Lean” work organization models. “Lean” is a model for organizing factory production, which originated with Toyota. At Lean’s core is the constant search for wasted movements, actions, and tasks in the production process, and the careful elimination of those wasted elements from the chain of work. Saskatchewan’s Ministry of Health wholeheartedly embraced the Lean model in 2008, and describes it as follows: “Lean is a patient-focused approach to managing and delivering care that continuously improves how we work. There are many processes involved in health care. Lean is about finding and eliminating waste in these processes. Waste is defined as anything that does not add value from the patient’s perspective.”³⁸

In Saskatchewan, the Lean model applied to nursing care was called “Releasing Time to Care” or RTC.³⁹ The goal of RTC is to change how nursing work is organized to free up, or “release” time that can be used for direct patient care. However, Lean has come under criticism; in 2014, six years into the implementation of Lean, the Saskatchewan Union of Nurses said that the program was unduly focused on short-term cost cutting and paid insufficient attention to its impact on patient safety. “We are finding that Lean does not fit

³⁷ Thomas A Lang et al., “Nurse–Patient Ratios: A Systematic Review on the Effects of Nurse Staffing on Patient, Nurse Employee, and Hospital Outcomes” (2004) 34:7 & 8 *J Nursing Administration* 326; Annette J Lankshear et al., “Nurse Staffing and Healthcare Outcomes: A Systematic Review of the International Research Evidence” (2005) 28:2 *Advances in Nursing Science* 163; Robert L Kane et al., “The Association of Registered Nurse Staffing Levels and Patient Outcomes: Systematic Review and Meta-Analysis” (2007) 45:12 *Medical Care* 1195; Elizabeth West et al., “Nursing Resources and Patient Outcomes in Intensive Care: A Systematic Review of the Literature” (2009) 46:7 *Intl J Nursing Studies* 993; Daleen Aragon Penoyer, “Nurse Staffing and Patient Outcomes in Critical Care: A Concise Review” (2010) 38:7 *Critical Care Medicine* 1521; Sally Wilson et al., “The Effect of Nurse Staffing on Clinical Outcomes of Children in Hospital: A Systematic Review” (2011) 9:2 *Intl J Evidence-Based Healthcare* 97; Paul G Shekelle, “Nurse-Patient Ratios as a Patient Safety Strategy: A Systematic Review” (2013) 158:5 *Annals of Internal Medicine* 404.

³⁸ Saskatchewan Health Quality Council, “About Lean,” *Better* (blog), online: <blog.hqc.sk.ca/about-lean/>.

³⁹ Saskatchewan Health Quality Council, online: <hqc.sk.ca/improve-health-care-quality/releasing-time-to-care/>.

with the registered nursing process, safe nursing practice, registered nurse decision-making or the formulation of nursing diagnoses,” said the Union president.⁴⁰

In my view, efficiency-driven strategies like Lean production fail as patient safety strategies because real funds need to be spent to reduce the rates of medical error. Experiments in Lean production models and other work-arounds to avoid the difficult choice of spending real public funds on hiring more nurses are not the solution. Bearing this in mind, efficiency steers us inexorably back to solutions that avoid difficult funding choices — to reforming how care is delivered, paid for, or supervised — and away from making the harder political choice of boosting the ranks of nurses and other health professions. Thus, efficiency causes a kind of procrastination in health policy; as more resources and deliberation are devoted to looking for ways not to hire more staff, fewer resources are left to actually hire more staff. This may explain why, despite spending above the Organization for Economic Co-Operation and Development (OECD) average on health care, Canada is still only at the OECD average for nurses per capita.⁴¹

These statistics reinforce that efficiency has been too readily accepted in Canadian health policy as a basis for spending restraint, and there has not been enough scrutiny on whether proposals that claim to be efficiency-based are truly efficiency promoting. In my view, the proper view of an efficiency-based claim is that it is in essence a calculated gamble that a desired outcome can still be reached by cheaper means. In the patient safety context, this becomes a gamble with peoples’ lives. Without evidence, to opt for a lower cost solution to improve patient safety is, in a metaphorical sense, to place a bet that no lives will be lost in the pursuit of savings. To view efficiency claims in any other way in the patient safety context is to ignore the real human cost of the risks being accepted. Policy choices that proceed from this understanding of efficiency claims will have more legitimacy than those which view efficiency simply as a mechanism to save public money for political appearances or electoral success. If efficiency claims are framed as a gamble that using lower cost methods to deliver care will not harm patients, then the politics of patient safety claims will become more immediate to the citizen in the position of depending on the system to provide safe care. Efficiency claims in the patient safety realm cannot be viewed benignly, as mere options on a menu of equally safe choices. If intangible costs in terms of human suffering and loss are made explicit in the efficiency equation, then governments will be less likely to adopt such claims as a means to cut costs.

Certainly, efficiency must be part of decision-making; the problem is the lack of mechanisms to check its influence and ensure that good, albeit difficult, policy choices are not abandoned. In any such mechanism, the fundamental question would be how to distinguish between efficiency claims made in good faith and those made merely to contain costs or for some other ulterior political or economic motive. There is a distinction between efficiency claims that promote reducing the cost of providing a constant range and

⁴⁰ The Canadian Press, “Saskatchewan Nurses Say Lean Program Has Little Impact on Patient Care,” *The Globe and Mail* (19 March 2014), online: <www.theglobeandmail.com/news/national/saskatchewan-nurses-say-lean-program-has-little-impact-on-patient-care/article17561357/>.

⁴¹ Organisation for Economic Co-Operation and Development, *Health at a Glance 2015* at 91, figure 5.13, “Practising Nurses per 1,000 population, 2000 and 2013,” online: <dx.doi.org/10.1787/888933280929>. Canada currently has 9.5 nurses per 1,000 population, just above the OECD average of 9.1.

accessibility of services, and efficiency claims that simply promote cost cutting via reducing the range and accessibility of services. The former is a technical claim to seek greater cost-effectiveness, while the latter is a political claim to simply reduce the role of government in the health care system. Efficiency, then, can be used as a rhetorical device to cloak a deeper policy agenda to shrink the public role in health service provision. As Janice Gross Stein explained, this is precisely what happened during much of the 1990s in Canada, as governments invoked efficiency when raw spending reductions were the goal. She wrote:

From 1992 through 1997, per capita public expenditures for health care not only held stable, but dropped. Expenditure did not keep pace with population growth, much less allow for the added costs associated with the aging of the population and new technologies. Controlling — or cutting — costs can be inefficient if it reduces the effectiveness of health care by an even larger margin. Much of the language of the past decade misconstrues efficiency to mean cost-containment. When this happens, as I argued in the previous chapter, efficiency becomes a cult.⁴²

Presently, however, there are no legal mechanisms by which efficiency claims in the patient safety context can be scrutinized by citizens. Governments retain a free hand, subject only to electoral accountability, to deploy the rhetoric of efficiency for political expediency because of its ability to distract from the more difficult political choices needed to make real improvements in patient safety. These choices include decisions to fund the hiring of more nurses, doctors, and other providers, and other strategies to improve both recruitment and retention and ultimately patient safety.

V. CONCLUSION

Sometimes overlooked in the empirical exercise of evidence-based decision-making is the role of the ideas underlying the context in which decisions are made. I have argued that efficiency as a concept has the potential to be subjugated to goals of cost-saving or cost containment, and misused as a label for those strategies. As discussed, there is now clear evidence that staffing ratios have a direct impact on patient safety, yet demands by nurses and other professions to add more to their ranks are often resisted by governments on the basis of cost. Thus, at a minimum, mechanisms are needed to properly scrutinize any efficiency-based claims advanced by governments to oppose demands to hire more providers. In the patient safety context, the costs in terms of human suffering and loss that arise from avoidable medical errors should cause policy-makers to slow down and examine any efficiency claims with great skepticism. Governments advancing efficiency claims in this way should bear the burden of establishing an evidentiary foundation for those claims; otherwise, the risk in human terms of adopting an efficiency-based strategy will be too great in relation to any expected cost savings.

⁴² Janice Stein, *The Cult of Efficiency* (Toronto: Anansi Press, 2001) at 97.