

Building Systemic Models for Medical Error Reporting

Tim Outerbridge*

I. Introduction: The Problem of Medical Error

In November of 1999, the U.S. Institute of Medicine released a groundbreaking report entitled *To Err Is Human: Building a Safer Health System*,¹ which drew a great deal of attention to issues of medical error and patient safety. The report highlighted some initially startling statistics, which have now become oft-quoted support for the preponderance of medical error in the United States.² A long awaited Canadian equivalent to this report was recently released,³ complimenting the heightened public awareness of medical error over the recent death of two individuals during dialysis therapy in Calgary.⁴ The Canadian report contains a clear reference to its American equivalent, with Chapter Four entitled “Too Err is Human ... In Canada too” and makes some equally startling conclusions about the quality of care in Canada. For example, the report concludes that “about 7.5% of admissions in non-specialized acute care hospitals in Canada”⁵ experience some type of adverse event.

The overall frequency and seriousness of medical error, however, has long been the focus of many studies, all of which have come to the remarkably similar

*Tim Outerbridge is currently articling with Field LLP, Edmonton, Alberta, and was a research assistant with the Health Law Institute, University of Alberta, from 2002 through 2004. This paper was awarded the Lieberman Prize in Law and Medicine in 2004.

¹ Committee on Quality of Health Care in America, Institute of Medicine *To Err is Human: Building a Safer Health System* (Washington: National Academy Press, 1999).

² The report indicated that as many as 44,000 to 98,000 people die in hospitals per year due to medical error alone. To put these statistics into perspective: About 43,458 people die in motor vehicle accidents, 42,297 die of breast cancer and 16,516 die of AIDS. As a result, this makes medical error the eighth leading cause of death in the United States (see *ibid.* at 1). These statistics have been reviewed in a number of publications, including Canada’s own National Steering Committee on Patient Safety, *Building a Safer System: A National Integrated Strategy for Improving Patient Safety in Canadian Health Care* (Ottawa: The Committee, 2002) [*Building a Safer System*] at 1 as well as in a host of academic articles, including Randall R. Bovberg, Robert H. Miller & David W. Shapiro, “Paths to Reducing Medical Injury: Professional Liability and Discipline vs. Patient Safety — and the Need for a Third Way” (2001) 29 J. Law. Med. & Ethics 369 at 370 [Bovberg, Miller & Shapiro] as well as John V. Jacobi & Nicole Huberfeldt, “Quality Control, Enterprise Liability, and Disintermediation in Managed Care” (2001) 29 J. Law Med. & Ethics. 305 at 310 [Jacobi & Huberfeldt].

³ Canadian Institute for Health Information (CIHI), *Health Care in Canada, 2004* (Ottawa: CIHI, 2004).

⁴ See e.g. Darcy Henton, “College to Probe Calgary Dialysis Deaths” Canadian Press Wire (2004 March 19): “One of the contributing factors in this case seems to be something that is well documented in the health literature: the concerns around the unintentional substitution of sound-alike, look-alike drugs.”

⁵ *Supra* note 3 at 42.

conclusion that it is a seriously overlooked problem.⁶ Addressing this problem is a big job, because reducing the frequency of medical error will require a close look at the systems we use to manage our health care system, a reexamination of the role of medical malpractice within that system, and a realignment of the entire culture of medical reporting that we rely on to develop safety initiatives.⁷

Predictions were made that *Healthcare in Canada, 2004* would paint an equally grim picture of medical error in Canada as *To Err is Human* did in the United States. Reports such as *Patient Safety and Quality Care: Action Required Now to Address Adverse Events*⁸ have suggested that, “extrapolating from the U.S. data, adverse events would account for 4,000 to 10,000 deaths per year in Canada.”⁹ We now in fact know that, if similar rates of medical error are present in the provinces not examined by *Healthcare in Canada, 2004*, that between 9,250 and 23,750 people per year experience a preventable adverse event and later die.¹⁰ This means more than *twice* as many Canadians than originally predicted are experiencing reversible adverse events in Canadian hospitals — statistically far more than in the United States.

Data from the front lines of medical practice compliment these statistics by suggesting that many adverse events go unreported. In fact, in a Report released just a week after two Calgary patients died from dialysis errors, it was stated that up to 70 percent of staff in the Calgary Health Region believe that mistakes are going unreported and that “40 percent of staff feel reporting mistakes is embarrassing and 16 percent avoid reporting for fear of losing their jobs.”¹¹ Furthermore,

⁶Recent examples include: G. R. Baker, *et al.*, “The Canadian Adverse Events Study: The Incidence of Adverse Events Among Hospital Patients in Canada,” (2004) 170 Canadian Medical Association Journal 1678; A.J. Forster, *et al.* “Adverse Events Among Medical Patients After Discharge from Hospital,” (2004) 170 Canadian Medical Association Journal 345. A.J. Forster, *et al.* “The Incidence and Severity of Adverse Events Affecting Patients After Discharge From the Hospital,” (2003) 138 Arch. Int. Med. 167.

⁷While there are plenty of examples, see *eg.* Health Canada, G.R. Baker & Peter G. Norton, *Patient Safety and Healthcare Error in the Canadian Healthcare System. A Systemic Review and Analysis of Leading Practices in Canada with Reference to Key Initiatives Elsewhere* (Ottawa, Health Canada, 2002).

⁸Canadian Healthcare Association, (Ottawa: The Association, 2002) at 4: “While the magnitude of [U.S.] numbers may seem incomprehensible, there is no reason to suggest that Canadian numbers are proportionally any different.”

⁹*Ibid.* In fact, as pointed out by Donald M. Berwick, “Reducing Errors in Medicine” (1999) 319 British Medical Journal 136 at 136, similar studies have been conducted in Australia, Israel, the United Kingdom, and elsewhere “suggest that errors and hazard in patient care are no lower in those jurisdictions than they are in America.”

¹⁰*Supra* note 3 at 42. It is important to note, however, that many of these patients may have already been chronically ill, and that the medical error may not have been the sole cause of their death.

¹¹Barbara Nichols, “Just One Week After Two Calgary Dialysis Patients Died from Being Given the Wrong Drug Solution, the Health Region has Released a Survey” Canadian Press (25 March 2004). See also a survey that was conducted at Nova Scotia’s Capital Health Region where 44% of health care providers felt that they would be “treated negatively” for reporting or disclosing errors (S. G. Campbell, B. Kiley & P. MacDonald, Capital Health Patient Safety Advisory Group, *An Analysis of Organizational Culture with Regard to Patient Safety* (Halifax: Capital Health, 2000

more than 70% of health professionals stated that under-reporting of adverse drug reactions was a very or somewhat serious problem in Canada today.¹²

The type of environment where there is a high frequency of medical error has forced health care providers and policymakers to take action, such as the auditing of practices,¹³ systems to track the interactions of drugs, and the implementation and the cross referencing of electronic health records (EHRs).¹⁴ Unfortunately, much of the recent political focus has been on decreasing wait times rather than dealing with medical error and other issues associated with primary care. The recently signed ten year Health Accord between the several provinces and the Federal Government commits \$4.5 billion to address wait times, but nothing directly to medical error.¹⁵ Identifying this problem with the Accord, Roy Romanow, former head of the Commission on the Future of Health Care in Canada, concluded that "...effort should instead be directed at more fundamental reform of the system, such as reducing medical error and reorganizing primary care" rather than reacting to the "political impulse" to throw money at wait times.¹⁶

Ensuring that enough resources are allocated to examine medical error is especially critical given that we still do not know about how and why so much medical error is occurring. In fact, *Health Care in Canada, 2004* acknowledges that we do not yet know what will be the most effective strategies to confront and prevent adverse events that lead to medical errors.¹⁷ Clearly, we need to begin by not only identifying adverse events as a pervasive problem, but also looking at realistic solutions that do more than identify broad areas where those errors are occurring. To this end, this paper has two primary goals. Firstly, it aims to canvass and evaluate proposals that have been put forth concerning the way health care providers should address the frequency of medical errors in the Canadian health care system. Second, it examines the implications of these proposals for health care professionals and evaluates the necessary changes that will have to be made to reporting practices and the place of negligence law.

¹²Decima Research Inc., *Public Opinion Survey on Key Issues Pertaining to Post-Market Surveillance of Marketed Health Products in Canada*. (Ottawa: Health Canada, 2004).

¹³Alan Woods & L. Greenburg, "Ontario, Manitoba Order Infection Control Audits" *National Post* (November 18, 2003) A4 at A4. See also R. Tamblyn, *et al.*, "The Medical Office of the 21st Century (MOXXI): Effectiveness of Computerized Decision-Making Support in Reducing Inappropriate Prescribing in Primary Care," (2003) 169 *Canadian Medical Association Journal* 49.

¹⁴Such as British Columbia's *PharmaNet* system, which identified more than 7.9 million interactions (*Supra* note 3 at 68, n. 31). See also D. W. Bates & A. A. Gawande, "Improving Safety With Information Technology," (2003) 25 *New England Journal of Medicine* 2526.

¹⁵Health Canada, "10 Year Plan to Strengthen Health Care." online: Health Canada, <<http://www.hc-sc.gc.ca/english/hca2003/fmm/index.html>>.

¹⁶Tom Blackwell, "Romanow Wants Private Care Debated Publicly: "This is a Decision that is To be Made by Canadians" *National Post* (October 1, 2004) A4 at A4.

¹⁷*Health Care in Canada, 2004*, *supra* note 3 at 50.

II. Proposed Solutions: Systemic Reform

a) Systemic Reform is Not a New Concept

For years, academics and policymakers have advocated a more “systems oriented” approach to the identification and correction of medical error. Arguably, such a proposal was first brought to the forefront in the now famous 1990 report authored by Robert Prichard, *Liability and Compensation in Health Care: A Report to the Conference of Deputy Ministers of Health of the Federal/Provincial/Territorial Review on Liability and Compensation Issues in Healthcare*.¹⁸ Citing rising levels of malpractice litigation, Prichard later summarized his recommendations at the Toronto Canadian Medical Protective Association (CMPA) Tort Reform Conference in 1998:

It was our judgment that most of the improvement lay not so much in the behaviour of individual physicians in individual cases, but in systemic improvements, in risk management, in quality assurance, in procedural arrangements designed to make health care safer ... to recognize that provision of health care is a multi-disciplinary team effort in which the physician is only one actor.¹⁹

At this conference, Prichard summarized the impact his report had on incremental reform and the improvement of safety initiatives in the last eight years as minimal: “Most of what we recommended has not been done. There have been some minor adjustments, but fundamentally the situation remains the same in 1998 as it was in 1990.”²⁰

The idea, therefore, that we need to shift focus from models of individual liability to an approach that recognizes that “error is often attributable to a long sequence of events”²¹ is certainly not new. However, many unanswered questions remain about just how to initiate systemic reform, especially if systemic change is going to further expand legal duties to disclose medical error to both hospitals and patients.²² In addition, the sheer number of different systemic approaches is

¹⁸ (Toronto: University of Toronto, 1990).

¹⁹ *Ibid.* at 35.

²⁰ *Ibid.* at 38.

²¹ *Supra* note 7 at 19. See Tim Wilson & Aziz Sheikh, “Enhancing Public Safety in Primary Care” (2002) 324 *British Medical Journal* 584 at 587: Managers and physicians “need to develop an understanding of what happens when something goes wrong and how they can avoid it in the future.” The basic premise of systemic liability is that “humans are fallible and errors are to be expected, even in the best originations ... errors are seen as consequences rather than causes” (James Reason, *Human Error* (New York: Cambridge, 1990) at 769) [Reason, *Human Error*].

²² In fact, as Robertson has argued, “[r]ecent studies in the United States have demonstrated that hospitals which introduced an active disclosure policy experienced a reduction in the incidence of malpractice litigation. ... [t]he lesson that the medical profession must learn is that when an error occurs, silence does not prevent litigation, it promotes it” (Gerald B. Robertson, “When Things Go Wrong: The Duty to Disclose Medical Error” (2002) 28 *Queen’s L.J.* 353 at 360-61 [Robertson]). Discussions have also centred around reforms to the various provincial evidence acts, to allow more candid reporting by physicians without fear of liability (*ibid.*).

daunting, and though many approaches sound productive, several fail to deliver concise results that are actually useful in breaking down the nature of specific medical errors and corrective action required.²³

b) Contemporary Approaches to Systemic Reform

One of the most oft-cited texts in relation to error reduction is James Reason's foundational text, *Human Error*.²⁴ Reason's central thesis is basically that human error can be attributed not only to the human being him or herself, but to a host of systemic factors that surround individual actions. Another definition from an oft-cited academic, L.T. Kohn, defines medical error as "the failure of a planned action to be completed as intended or *the use of a wrong plan to achieve an aim*."²⁵ What these definitions have in common is their focus on context, or, the surrounding systems that contribute to a climate where error takes place.

Although this type of context sensitive approach has been adopted in both the Canadian *Building a Safer System* and American *To Err is Human* reports, both of these reports adopt the general principles behind Reason's theories, without really recommending anything beyond the redistribution of blame for medical error on the failure of the general "system" of delivery. For example, *Building a Safer System* dismisses the "term 'medical error [as] associated with a culture of blame, and...therefore not recommended for use"²⁶ and goes on to list 20 general areas of "broader system issues" which "significantly impact the number of adverse events associated with the delivery of health care."²⁷

Health Care in Canada, 2004, however, takes a remarkably more balanced approach by citing James Reason's research and acknowledging that "gaps in defenses [to medical error] can exist at many levels."²⁸ The Report is more true to Reason's original thesis by dividing its analysis into a broader, more general analysis and laying out precise measures that must be taken to address medical errors and adverse events. As well, the foundation of the Canadian Patient Safety Institute, which held its inaugural meeting in February of 2004, will approach the problem of medical error by analyzing "system" issues and "legal/regulatory issues"²⁹ in specific "problem" areas where change is required.

²³ See generally C. Vincent, S. Taylor-Adams & N. Stanhope, "Framework for Analyzing Risk and Safety in Clinical Medicine" (1998) 316 *British Medical Journal* 1154 and, for an overview of contrasting theories, see R.I. Cook & D.D. Woods, "Operating at the Sharp End: The Complexity of Human Error" in M.S. Bogner, ed. *Human Error in Medicine* (Hillsdale, NJ: Erlbaum, 1994) at 255-300.

²⁴ *Supra* note 21.

²⁵ *Supra* note 1 at 56.

²⁶ *Building a Safer System*, *supra* note 2 at 7.

²⁷ These events include a number of

²⁸ *Supra* note 3 at 15.

²⁹ Health Canada, *Canadian Patient Safety Institute* (CPSI) (news release) online: Health Canada, <<http://www.hc-sc.gc.ca/english/care/cpsi.html>>.

Clearly, though, even with the release of the startling results in *Health Care in Canada, 2004*, researchers and policymakers are still very much still within the “data gathering” stage and remain unsure just how they are going to actually replace a model that tends to place blame on individual healthcare providers with a more distributive model of systemic liability and open error reporting.

There is no doubt that systemic approaches have at their heart the idea that “errors are seen as consequences rather than causes, having their origins not so much in the perversity of human nature as in the ‘upstream’ systemic factors.”³⁰ Systemic models, therefore, generally embrace the idea that human error is essentially unavoidable and that “though we cannot change the human condition, we can change the condition under which humans work.”³¹ The disadvantage of systemic analysis, however, is that it advocates a displacement of responsibility onto systems rather than human beings. Of course, this presents a fair bit of anxiety for those individuals who are both looking for someone to blame as well as somebody from which to collect compensation.³²

III. Where Does Systemic Reform Displace Responsibility?

a) The End of the Negligence Action?

The problem from the perspective of medical error, therefore, is that “mal-practice actions are not exclusively, or even primarily about quality control; rather, they are intended to provide compensation for losses flowing from negligent medical injury.”³³ The link, therefore between negligence actions and their deterrent or corrective function is extremely tenuous, as the “common law negligence theory of setting enforceable standards through the accretion of fact-specific cases does not feasibly permit physicians to discern discrete rules that are useful to the practice of medicine.”³⁴

³⁰ James Reason, “Human Error: Models and Management” (2000) 320 *British Medical Journal* 768 at 768.

³¹ *Ibid.*

³² See *ibid.* at 768: “Blaming individuals is emotionally more satisfying than targeting institutions. People are viewed as free agents capable of choosing between safe and unsafe modes of behavior. If something goes wrong, it seems obvious that an individual (or group of individuals) must have been responsible.” See excellent discussion of this issue in Bryan A. Liang, “Error Disclosure for Quality Improvement: Authenticating a Team of Patients and Providers to Promote Patient Safety” in Virginia A. Sharpe, ed. *Accountability: Patient Safety and Policy Reform* (Washington: Georgetown University Press, 2004) 59 at 63-71, where the current Medico-Legal climate is indicted as being unsupportive of theories of systemic error.

³³ Jacobi and Huberfeld, *supra* note 2 at 305.

³⁴ *Ibid.* at 306. See also D. Shuman, “The Psychology of Deterrence in Tort Law” (1993) 42 *Kansas L. Rev.* 115 at 123, where the argument is put forth that it is very difficult to extract coherent principles from the accretion of discrete fact scenarios.

As a result, therefore, we need to begin by distinguishing the corrective function of error reporting from the remedial function of the negligence action.³⁵ While both play important roles, an exclusive focus on a purely systemic solution to errors within the health care system runs the risk of eclipsing the fact that doctors are free agents themselves and that not all mistakes can be blamed exclusively on systems themselves. Conversely, an exclusive focus on individual mistakes propagates the “culture of blame” that has been cited as a major deterrent to error reporting in both the Canadian and U.S. contexts.³⁶

Despite this fact, imbalanced assumptions continue to be made in literature supporting systemic reform, such as the supposition that, in the context of medical error, “human action is always limited by local circumstances, free will is an illusion, not a certainty.”³⁷ Although there is little doubt that the majority of medical errors do occur because of systemic problems,³⁸ protections still need to be in place to ensure that physicians which are, in fact, acting negligently on their own accord will be identified and sanctioned.

Exclusively systemic approaches may have difficulty identifying truly negligent physicians. Firstly, it would be difficult to justify lifting the burden of individual liability exclusively within the realm of medical error and not extending systemic models of blame to other tortuous contexts. Secondly, introducing institutional/enterprise liability as a replacement for individual liability presents all sorts of difficulties in terms of implementation: For example, who will be liable for injuries that occur outside of the hospital in physician’s private practices? And, if institutions are, in fact, going to shoulder an increased amount of responsibility for the mistakes of those working within hospitals,³⁹ will they be any *less* deterred from

³⁵ While tort law has said to serve three goals: retribution, deterrence and compensation (G. Williams, “The Aims of the Law of Tort,” (1951) 4 *Current Legal Problems* 137 at 168), there is very little agreement as to whether tort law actually serves this deterrent function. See eg. G.T. Schwartz, “Reality in the Economic Analysis of Tort Law: Does Tort Law Really Deter?” (1994) 36 *UCLA L. Rev.* 255.

³⁶ See e.g. *Building a Safer System*, *supra* note 2 at 8: “Blaming, and then punishing individuals, is not an effective approach for improving safety within the system and understandably causes reluctance among health-care personnel to openly report and discuss adverse events.” See also *supra* note 1 at 44-50.

³⁷ Susan McClanahan, Susan T. Goodwin and Frank Houser, “A Formula for Errors: Good People + Bad Systems” in Patrice L. Spath, ed. *Error Reduction in Health Care: A Systems Approach to Improving Patient Safety* (Washington: AHA Press, 2000) at 4.

³⁸ See Agency for Healthcare Research and Quality, *Medical Errors: The Scope of the Problem — An Epidemic of Errors* (Washington, The Agency, 2004) at 2: “[M]ost of the medical errors are systems related and not attributable to individual negligence or misconduct.” See also *supra* note 1 at 50: “Accidents are more likely to happen in certain types of systems. When they do occur, they represent failures in the way systems are designed. The primary objective of systems design ought to be to make it difficult for accidents and errors to occur and to minimize damage if they do occur.”

³⁹ The question of whether a health authority or hospital could be held liable for a physician’s mistake is still very much up for debate in Canadian law, especially since doctors are usually characterized as independent contractors rather than employees. See Timothy A. Caulfield, “Health Care Reform: Can Tort Law Meet the Challenge” (1994) 32 *Alta. L. Rev.* 685 at 712 where Caulfield states that “hospital exposure to malpractice litigation is still relatively limited” and observes that physicians are still considered independent contractors and, thus, hospitals are shielded from vicarious liability. See also

reporting error? In other words, are systemic approaches to error reporting simply *displacing* liability for negligence onto hospitals and health authorities, making them now the ones that would seek to avoid error reporting to avoid consequent liability?

For clearly, if liability is a “disincentive to reporting by individuals, is it also a disincentive to reporting by institutions?”⁴⁰ While it may certainly be that those institutions do not take medical error as “personally as do individuals who are sued, institutions value their reputations, and probably prefer to avoid adverse publicity from disclosures of internal problems.”⁴¹ In fact, it is arguable that the stakes are even higher from an institutional perspective, because, as has been shown by the recent Calgary dialysis example, whether true or not, negative publicity can have a strongly detrimental effect on public confidence in the health care system and that alone can engender hesitation to report errors and the “culture of secrecy.” As a result, an exclusive focus on systemic methods to combat medical error may not be the best method to ensure full disclosure of those errors.

IV. Proposal: Can We Balance Individual & Systemic Responsibility

a) U.S., U.K. & Canadian Approaches

To combat these questions, a carefully balanced approach to the implementation of systemic changes is required. Within our systemic model, we must ensure to maintain the possibility that individual health care workers do have the potential to act negligently, but that “systems must be developed to *minimize*” rather than eliminate “the effects of human mistakes.”⁴² Like *Health Care in Canada, 2004*, the working definition of error in *To Err is Human* implicitly recognizes this possibility, despite the report’s focus on systemic models of liability. *To Err is Human* adopts Kohn’s definition of error as “the failure of a planned action to be completed as intended or the use of a wrong plan to achieve the aim.”⁴³ The first part of this definition could clearly encompass physician negligence, whereas the second is clearly focused on improper planning involved in health care delivery. This definition is useful because of its balanced approach where one “can hold providers accountable for performance or, alternatively, they can provide information that leads to improved safety.”⁴⁴

Yepemian v. Scarborough General Hospital (1980), 110 D.L.R. (3d) 118 (Ont. C.A.) where the Supreme Court of Canada refused to extend liability beyond the physicians in a negligence action.

⁴⁰Justice Herbert P. Wilkins, *Medical Error Reporting: Professional Tensions Between Confidentiality and Liability* (Massachusetts: Massachusetts Health Policy Forum, 2001) at 7.

⁴¹*Ibid.*

⁴²Robert A. McNutt, Richard Abrams and David C. Aron, “Patient Safety Efforts Should Focus on Medical Errors” (2002) 287 *Journal American Medical Association* 1997 at 1998.

⁴³*Supra* note 1 at 56.

⁴⁴*Ibid.* at 18. As Jacobi and Huberfeld, *supra* note 2 put it: “The imposition [of liability] is justified by the fact that the enterprise benefits from the ability to impose risk on society and, thus, it might fairly be

Canada's old approach in *Building a Safer System* takes a more exclusively systemic tack and goes as far as to conclude that

no blame or fault should be apportioned to individuals following reporting, subject to limited qualifications such as failure to report safety hazards or critical incidents, and premeditated or intentional acts of violence against people, equipment or property.⁴⁵

Clearly, although the report advocates for an environment where the "reluctance among health care personnel to openly report and discuss adverse events"⁴⁶ is decreased, removing liability for all but the most egregious of mistakes threatens to remove all substantive checks on the behavior of physicians.⁴⁷ Instead, a more limited version of liability protection could be imposed on physicians, whereby distinct categories are created for more serious types of negligent behaviour that are not shielded from liability. As a result, the remedial function of the negligence action will still ensure that individuals receive tailored levels of compensation for more serious injuries, but systemic error reporting will still remain in place.

This approach is not novel. In the mid-1980s, as incidents of malpractice were rising in the United States,⁴⁸ both Virginia and Florida adopted a no-fault compensation system limited to the specific area of obstetrics.⁴⁹ Because obstetrics was fast becoming an area where insurance premiums were becoming unaffordable, the program aimed to both ensure the reporting of medical error and the maintenance of remedial provisions to allow compensation. Even so, many individuals still felt

asked to shoulder the burden when injuries result. The imposition is seen as sensible because the designated organization has primary control over the creation and risk and the concomitant ability to exercise that control to reduce the scope of that risk."

⁴⁵ *Building a Safer System*, *supra* note 2 at 15 [emphasis added].

⁴⁶ *Ibid* at 8.

⁴⁷ In fact, as pointed out in *supra* note 40 at 16,

... legislation that is intended to change people's behaviour by removing or reducing the risk of liability is rarely evaluated to determine whether it has achieved its goal. This contrasts with the beneficial trend toward studying the effects of legislation intended to achieve more traditional public safety and health goals, such as reducing injuries from consumer products...

The debate between "no fault" systems and systems which retain individual liability is also addressed in *Supra* note 3 at 12.

⁴⁸ See *eg.* James C. Mohr, "American Medical Malpractice Litigation in Historical Perspective" (2000) 283 *Journal of the American Medical Association* 1731 at 1736: "A second period of adjustment occurred during the consumer conscious 1960s, which, among other things legitimated a quantum leap in the amount of money awarded in tort actions. The reality of new thresholds became apparent to physicians as the average award in medical malpractice actions more than tripled between 1975 and 1985, helping trigger a malpractice crisis in that area."

⁴⁹ See *Virginia Birth-Related Neurological Injury Compensation Act*, Va. Code Ann. 38.3-5001 (1987).

the need to bring tortuous claims for more serious types of injury, especially where claims involved loss of future earnings.⁵⁰

b) A Precise Balancing is Required

As a result, a very precise approach needs to be taken when lifting the liability veil and imposing systemic models on existing health structures to ensure that tortuous remedies are not erased or excluded where appropriate. Not only, therefore does the “no blame” approach suggested by *Building a Safer System* fail to recognize the significantly important role that the negligence action plays to check the behaviour of incompetent or dangerous physicians,⁵¹ but it also does not recognize the possibility that tortuous remedies may themselves provide appropriate levels of compensation in certain contexts. As demonstrated by the Virginia/Florida example, the public is dependent on both negligence law and systemic models in the identification of medical error.

Although there is plenty of fear that increased error reporting will lead to increased numbers of malpractice suits, there is little evidence to show that increased error reporting necessarily leads to increases in the number of lawsuits filed.⁵² It should be remembered that the scope of reportable medical error is much broader than the scope of actionable errors. For example, medical errors can occur without negligence and often do not cause injury.⁵³ In addition, it is also possible for injury to occur, but for the negligence not to be proven. In fact, according to a Harvard Medical Study, less than .02% of those claims thought to be “negligent” actually end up bringing a negligence action.⁵⁴

However, because of the inherent difficulty in establishing link between a physician’s negligence and the injury, the types of medical errors identified by the negligence action tend to be of the more serious variety. The test for medical

⁵⁰D.M. Studdert, Lori A. Fritz and Troyen A. Brennan, “The Jury Is Still In: Florida’s Birth Related Neurological Injury Compensation Association After a Decade” (2000) 25 J. Health Pol. Pol’y & L. 499.

⁵¹ See e.g. D.M. Studdert and T.A. Brennan, “No-Fault Compensation for Medical Injuries: The Prospect for Error Prevention” (2001) 286 Journal of the American Medical Association 217 at 220, where one of five critical aspects of systemic management is to “have mechanisms to deal with incompetent, dangerous or malevolent physicians.”

⁵² As a matter of fact, research has consistently shown that while there was a steady increase in cost awards in the 1970s and early 1980s, the number of lawsuits commenced in the last five years has been slowly decreasing from 1,354 suits commenced in 1999 to 1,117 in 2003, despite steadily increasing membership. This is in stark contrast the number of “hospital matters” which more than doubled from 295 to 729 in 2002-2003 (despite an acknowledgement in the report that there has been a “change in how we collect and report data” concerning “hospital matters”) (The Canadian Medical Protective Association (CMPA), *Annual Report* (Ottawa: CMPA, 2003).

⁵³ *Supra* note 40 at 13.

⁵⁴J.R. Localio, A.G. Lawthers and T.A. Brennan *et al.* “Relation Between Malpractice Claims and Adverse Events Due to Negligence — Results of the Harvard Malpractice Study III” (1991) 325 New England Journal of Medicine 245. Furthermore, in Canada, 41% of Albertans who reported a serious complaint concerning medical services (CMPA, *CMPA Submission to the Commission on the Future of Health Care In Canada (Romanow Commission)* (Saskatoon: CMPA, 2001)).

negligence, for example, requires that a link be drawn between the physician's behaviour and the context in which that behaviour transpires: "In judging what is the average reasonable doctor, regard must be had to the special class or community to which a doctor belongs"⁵⁵ and thus, the context within which much negligence analysis transpires may, as a template, already take into account many of the systems that might have contributed to the physician's error.

Not to mention the difficulty in getting expert witnesses to actually testify against their colleagues to establish a standard of care, for something to qualify as "medical error" for the purposes of negligence, the error must generally be serious indeed. As identified by Bovberg, Miller and Shapiro, the success of the negligence action is in its ability "to identify events where the shortcomings are most obvious to outsiders — like anesthesia mishaps or wrong-site surgery"⁵⁶ and to then provide a "socially acceptable"⁵⁷ form of dispute resolution in the form the lawsuit.

It may well be, therefore, that the negligence action serves the useful purpose of pinpointing those errors, while admittedly more rare, that are attributable less to systemic problems and more to basic human mistakes. So, although we recognize that health delivery is made up of "a complex array of interdependent steps formulating a chain of events"⁵⁸ that leads to either adequate or inadequate provision of care, we will have to choose our systemic models very carefully to ensure that we are still able to sanction physicians for the more serious and obvious medical errors attributable to actual negligence. That being said, the importance of identifying smaller, discrete errors in medical processes cannot be underestimated, given the staggering preponderance of medical error and adverse events reported in *Health Care in Canada, 2004*.

V. Models to Implement the Balanced Approach

a) The Inadequacy of Root Cause Analysis

A distinction, therefore, needs to be made between those error reporting systems which have the tendency to produce useful results and those which are far too broad to be practically useful. As distinguished by Reason, the "central problem in error classification is the difficulty of reconciling the often highly specific contextual triggers of a particular error" with its manifestation in "some very general adaptive process or basic error tendency."⁵⁹ As a result, error detection should really be about identifying "the weakest links in the policy making, organizational, and technical delivery systems of care" rather than an exclusive focus on finding the "root" or more abstract "causes" of multiple classes of errors.

⁵⁵ *Meyers (Next friend of) v Stanley*, 2003 ABQB 468.

⁵⁶ Bovberg, Miller & Shapiro, *supra* note 2 at 372.

⁵⁷ *Ibid.* at 378.

⁵⁸ *Supra* note 42 at 1998.

⁵⁹ Reason, *Human Error*, *supra* note 21 at 10.

For example, many injury prevention models, including the one proposed in *Building a Safer System*, employ a type of root cause analysis.⁶⁰ Essentially, what this type of analysis does is simply list a number of potential causes of adverse events, generally from most abstract principles to least. So, to take an example from *Building a Safer System*, the types of factors listed range from such minute issues as the increased complexity of diagnosis to more broader principles, such as a “culture of blame” or “culture of secrecy” that attempt to further shroud medical errors. The problem with this type of analysis, of course, is that it tends to produce large lists of possible “areas” where error has occurred and may obfuscate rather than identify particular problems within a given system.⁶¹

b) Theory of Constraints (TOC)

The data that is collected through this “root cause” analysis, therefore, must be subject to some type of additional scrutiny, so that the particular cause(s) of the error can be identified. Logically, this would involve structuring the data in a linear manner that would then identify the particular steps that are causing or have the potential to cause error. The Theory of Constraints (TOC)⁶² functions to structure data collected through “root cause” analysis and is useful in pinpointing the particular steps in a given system that are causing medical error. Essentially, TOC will rank order data gathered by “root cause” analysis by identifying those particular steps that “limit the performance of the system relative to the actual goal.”⁶³ Often, what will happen is that much of the undesirable events that lead up to the medical error itself will point to a single factor. That factor, therefore, becomes the focus for improvement and a number of different solutions can be applied, from “simplification ... using technology to enforce safe actions ... and subordinating all other activities in the process to the constraint.”⁶⁴

c) Combining Root Cause Analysis With TOC

Mere root cause analysis, therefore, simply identifies possible areas for improvement, whereas TOC analysis integrates evidence based conclusions as a foundation for predicting error. Evidence based medicine, or the idea that we should

⁶⁰ See *Building a Safer System*, *supra* note 2 at 8: “A root cause analysis is a technique of systematic investigation of an adverse event or near miss to determine the immediate and underlying cause(s) and any other contributing factors.” The report then goes on, at 8-9 to list a number of broader systemic issues that might contribute to individual medical error, including everything from cost containment to fatigue to physical environment.

⁶¹ See *eg.* D.M. Berwick, “Not Again! Preventing Errors Lies in Redesign — Not Exhortation” (2001) 332 *British Medical Journal* 247. See also *supra* note 1 at 13: “Reporting systems without adequate resources for analysis and follow-up action are not useful. Reporting without analysis or follow-up may even be counterproductive in that it weakens support for constructive responses and is viewed as a waste of resources.”

⁶² See *eg.* H.W. Dettmer, *Goldratt’s Theory of Constraints: A Systems Approach to Continuous Improvement*. (Milwaukee: ASQ, 1997).

⁶³ *Supra* note 42 at 2000.

⁶⁴ *Ibid.*

“apply high-quality scientific evidence about what works and what does not in various circumstances will improve quality and outcomes”⁶⁵ is a distinctly Canadian approach.⁶⁶ Interestingly, the exclusively broader approach that is advocated in *Building a Safer System* does not focus on the correction or identification of discrete errors, but rather, on the broader policy and regulatory issues that inform and create the environment in which those systems function. *Health Care in Canada, 2004* does a better job of zeroing in on particular strategies to combat medical error, but some problems remain with the direction of the analysis. Although getting a “new orientation towards quality and safety that goes to the heart of how health care work is organized”⁶⁷ remains critically important, we cannot continue to take a top down approach to the identification of medical errors. Working from broad assumptions about where medical error is taking place is bound to taint the results we collect from any reporting system.

d) Avoiding Hindsight Bias by Working *From the Data*

Instead, systemic analysis needs to be more fact dependent, because getting an appreciation of where systemic problems are coming from requires an appreciation of how systems function on the front lines of medical treatment. As reflected in *To Err is Human*, “The perceived value of reports (in any type of reporting system) lies in the narrative that describes the event and the circumstances under which error occurs.”⁶⁸ As a result, the initial focus of any error reporting system needs to be the collection of information then be subjected to TOC analysis to determine particular causes of error, which may well then lead to (rather than begin at) broadly administrative or policy based concerns. An over reliance, however, on uneducated “guesses” concerning the preponderance of various broad policy or regulatory “environments,” such as “cultures of secrecy” or “cultures of blame”⁶⁹ without adequate data to back up such assertions creates a bias that then taints any “top down” analysis. In fact,

given that the information about an accident is spread over many participants, none of whom may have complete information, hindsight bias makes it easy to arrive at a simple solution or to blame an individual, but difficult to determine what really went wrong.⁷⁰

⁶⁵ Steven Lewis, “A Colloquy on the Romanow Report: The Potted Road to Romanow — Unrealized Ambitions in Canadian Healthcare Reform” (2003) 66 Sask. L. Rev. 549 at 554.

⁶⁶ See *eg.* Evidence Based Working Group, “Evidence Based Medicine: A new Approach to Teaching the Practice of Medicine” (1992) 268 *Journal of the American Medical Association* 2420.

⁶⁷ *Supra* note 65 at 556.

⁶⁸ *Supra* note 1 at 24.

⁶⁹ See *eg.* Bovberg, Miller & Shapiro, *supra* note 2 at 374: “To work, patient safety approaches must create an organizational culture of openness to discovery and discussion of problem within clinical settings, but it is doubtful this culture can coexist with the negative and blaming culture that surrounds discipline and liability.”

⁷⁰ *Ibid.* at 4.

A type of “hindsight bias” thus effects any analysis that would proceed from broad and uninformed categorical assumptions about where error occurs to abstract finger pointing. What is so useful about TOC analysis, therefore, is its ability to reliably identify discrete areas where error occurs as well as a lack of bias that is consistent with the principles of evidence based medicine.⁷¹

In fact, the negligent behavior of individual physicians, while certainly incompatible with analyses that simply prioritize systemic flaws, may well be examinable under a combined root cause and TOC method. For, there is nothing to say that medical negligence cannot be one of the causes identified in this type of less biased bottom-up analysis. Especially if the discrete steps preceding the error identified in the TOC analysis do not point to any particular procedural cause, the potential for the cause to be simply one of negligence becomes all the more likely. For, if the physician or hospital cannot identify systemic causes for error, the responsibility should therefore rest on actor who, in the provision of care, has made a misjudgment while being supported by an adequate systemic environment.⁷²

VI. Preserving Accountability in Implementation of Systemic Reform

a) Defending the Negligence Action

There is, therefore, a certain degree of compatibility between systemic approaches to identifying error and professional sanctions in the form of the negligence action. Essentially, systemic analysis can be used to uncover those errors that are less obvious, whereas the success of a negligence action will be in its ability to assist in identifying those more serious errors that require both immediate redress by way of compensation to injured parties and sanction to the negligent health care worker. While implementation of systemic change, therefore, must be done “in harmony with the most positive aspects of existing structures which address medical injury, while the aspects of those structures that threaten the success of more systematic safety efforts must be ameliorated,”⁷³ policymakers should not automatically assume that negligence law is a hindrance to the discovery and reporting of medical error.

⁷¹ Ever outside the particular context of health care, Reason himself supports the use of evidence-based approaches to the uncovering of error. As he states, in reference to TOC type analyses: “Such categorizations are valuable because they draw attention to the complex interaction between ‘local’ triggering factors and underlying error tendencies. They address themselves to the issue of what prompts an error to appear at a particular point in the behavioral sequence and so stress the importance of recording as much information as possible regarding the surrounding circumstances” (Reason, *Human Error*, *supra* note 21 at 11).

⁷² This enumeration of medical negligence is certainly compatible with the current definitions of medical negligence. See *supra* note 45 and accompanying text.

⁷³ Bovberg, Miller & Shapiro, *supra* note 2 at 377.

In fact, there exists little empirical evidence to back up claims that the negligence action necessarily leads to decreased error reporting and studies that do exist point to the success of negligence law in providing some “marginal effect in deterring medical injury”⁷⁴ by identifying and categorizing areas where injury is more likely to occur.⁷⁵ So, to conclude, the “explosion of work on systems based error reduction in the era of managed care”⁷⁶ should really be looked at as an “opportunity for coordination between the medical and legal systems” rather than the continuing construction of an adversarial relationship. Increased accountability in systems, therefore, should be complimented by an emphasis on improving the level of professional accountability to which individual health care workers are held.

b) Systemic Reform & The Duty to Report Error

Increasing the accountability of physicians has two dimensions: physicians need to be made aware of the responsibilities they may have to report medical error, and the *actual* reporting of those errors needs to be facilitated through either full whistleblower protections or some type of anonymization scheme. Making physicians aware of their responsibility (if any) to report medical error is complicated by a highly inconsistent approach to reporting duties in various different jurisdictions. The Canadian Medical Association’s *Code of Ethics*⁷⁷ requires physicians to disclose “harm” to the patient, but remains silent on the issue of a duty to disclose mere adverse events. Caselaw, however, has even gone as far as to say that “doctors are not required to tell a patient that they have been ‘negligent.’”⁷⁸ Given doctor’s fiduciary duty to always act in the best interests of his or her patients,⁷⁹ the lack of a positive duty to disclose *negligent* acts, though qualified, is surprising indeed.⁸⁰

The “culture of secrecy,” or the simple lack of disclosure by medical professionals is often attributed to doctors’ unwillingness to be forward about mistakes and near misses that they have incurred for fear of liability. However,

⁷⁴ See Jacobi & Huberfeld, *supra* note 2 at 306. See for example, R. Posner, *Economic Analysis of the Law*, 5th ed. (New York: Aspen, 1998), where the argument is made the malpractice law has a positive effect in deterring error. See also Weiler *et al.*, *A Measure of malpractice: Medical Injury, Malpractice Litigation, and Patient Compensation* (Cambridge, MA: Harvard, 1993) at 141-42.

⁷⁵ See Harvard Medical Practice Study Group, *Patients, Doctors and Lawyers: Medical Injury, Malpractice Litigation and Patient Compensation in New York* (Cambridge, MA: Harvard, 1990) which argues that tort law does serve an important role in quality maintenance and improvement.

⁷⁶ Jacobi & Huberfeld, *supra* note 2 at 314.

⁷⁷ Canadian Medical Association (CMA), (2000), online: CMA <www.cma.ca>.

⁷⁸ Robertson, *supra* note 22 at 354.

⁷⁹ See *eg. Norberg v. Wynrib* [1992] 2 S.C.R. 226 and *McInerney v. MacDonald*, [1992] 2 S.C.R. 138.

⁸⁰ In fact, as pointed out by Robertson, *supra* note 22 at 357, a doctor’s fiduciary duty has been held to encapsulate “a duty to inform the patient if something goes wrong in the course of treatment.” However, as further discussed, that duty is strongly linked to the potential for actual harm to occur, meaning that a physician would not have to report “near misses” and other problems that could prevent error from a systemic perspective. See Albert W. Wu, “Is there an Obligation to Disclose Near Misses in Medical Care?” in Sharpe, ed., *supra* note 32 at 135-142.

without an actual *duty* to disclose or guidance in codes of conduct, it is equally possible that physicians simply *do not know* that error disclosure can have positive effects, both in terms of patient security and the potential for systemic improvements.⁸¹ A lack of guidance for physicians concerning their duty to report medical mistakes, therefore, may only contribute to the perception that the negligence action perpetuates a “culture of secrecy.”

The lack of guidance concerning the duty to report such mistakes, however, may be slowly eclipsed if policymakers and regulators choose to focus equally on the *delivery* of care and the systemic aspects that surround that delivery. Already, many jurisdictions are instituting positive duties to report. As of 2002, Quebec, for example, has a new Code of Ethics where doctors must tell patients about all “incidents, accidents or complications” that occur during treatment that “could have a substantial impact on the patients health.”⁸²

As Doctor Francois Gauthier stated, “[t]he objective is to permit the patient to be informed” and although “if there is a question of negligence the patient can sue, [b]ut this *is not the principal purpose*, what is important is the patient should know, and, secondly, the situation should be corrected.”⁸³ The focus of the Quebec error reporting system, therefore, from perspective of the physician, is on both on identifying and reporting errors as well as addressing the way that such errors can be corrected. As a result, the Quebec model encourages the type of open disclosure that both places information concerning medical error in the public domain so those errors can be fixed and, correspondingly, informs physicians of their duty to make such disclosure.

A slightly different approach has been very recently adopted in the United Kingdom. As of February 23, 2004, the world’s first nationally coordinated system for the reporting of medical errors was launched.⁸⁴ This system, provides for an anonymous online reporting system, where all identifiable information is removed concerning the participants in the adverse event. It uses precisely the same type of root cause/TOC analysis I have outlined here, working from individually reported errors to identify discrete recurring problems and then devising strategies to correct

⁸¹ In fact, some scholars have concluded that a physician that is initially up front and honest about the mistakes that have been made are more likely to forestall a lawsuit by admitting fault and accepting responsibility immediately. See *eg.* J.R. Cohen, “Advising a Client to Apologize” (1999) 72 South. Cal. L. Rev. 1009.

⁸² Quebec, *Code of Ethics*, 2004.

⁸³ David Spurgeon, “Quebec Doctors Must Tell Patients About Medical ‘Accidents’” (2002) 325 British Medical Journal 1192 at 1192.

⁸⁴ There are national error reporting systems established in several countries, however, they are not coordinated to the same degree. The US has a Medication Error Reporting Program operated by United States Pharmacopoeia in cooperation with the ISMP, the Joint Commission on Accreditation of Healthcare Organization’s sentinel event reporting system, as well as the FDA’s MedWatch program that handles adverse drug reaction events. In Canada, ISMP runs a volunteer practitioner reporting system (David U, “Medication Error Reporting Systems: Problems and Solutions” (2001) 1:2 New Medicine 61 at 64.

those problems. Susan Williams, co-director of the institute stated that one of the primary goals of the reporting system was to “increase awareness of safety issues, so that the number of reports increase”⁸⁵ and the confidentiality protections would certainly lift any fear of liability imposed on physicians.

The U.K. system, therefore, may provide the high volume of data required to implement effective root cause/TOC analyses that can then be used to identify and correct error causing mechanisms. However, although “information on AEs [adverse events] is critical to improving care,”⁸⁶ the U.K. model also needs to ensure that mechanisms that identify negligent physicians are maintained and that anonymous error reporting is not seen by doctors as discharging ethical responsibilities to communicate medical error to their patients.⁸⁷ Initiatives, such as New York State’s policy on reporting adverse events, which actually contains directives to instruct practitioners to disclose errors to patients, as well as Toronto’s Sunnybrook policy that encourages similar reporting practices are necessary to ensure error reporting to patients is retained or increased.⁸⁸

From the perspective of the U.K. model, putting undue pressure on health care providers to report medical error by insisting they disclose their identities is viewed as counterproductive, because, presumably, it may cause individuals to hesitate for fear of liability.⁸⁹ In contrast, the Quebec model makes error reporting mandatory (but not legally mandatory) and makes no provision for ensuring the confidentiality of the person reporting the error. If Canada is to adopt a national medical error reporting system, two priorities will need to be assessed: either the focus, as in the U.K., will need to be on an initial anonymous mass collection of data, followed by analysis, or, alternatively, there will be a focus on improving professional accountability and ensuring that health care providers become slowly cognizant of a *duty* to disclose medical errors and near misses.⁹⁰

⁸⁵ Vital Kaukireddi, “National Reporting System for Medical Errors is Launched” (2004) 328 *British Medical Journal* 481 at 481.

⁸⁶ G. Ross Baker & Peter G. Norton, “Adverse Events and Patient Safety in Canadian Health Care” (2004) 170 *Canadian Medical Association Journal* 353 at 353.

⁸⁷ The idea that a “therapeutic privilege” exists, where physicians can rationalize the non-disclosure of medical mistakes by the concern that it would “increase patient anxiety or confuse the patient with additional information” has been largely discredited (See Philip C. Herbert, Alex V. Levin & Gerald Robertson, “Bioethics for Clinicians: 23. Disclosure of Medical Error” (2001) 164 *Canadian Medical Association Journal* 509 at 510).

⁸⁸ *Ibid.* at 510.

⁸⁹ The news release states that “it is essential that such incidents are reported locally, investigated and analysed so that suitable learning and actions can follow (Vital Katikireddi, “National Reporting System for Medical Errors is Launched” (2004) 327 *British Medical Journal* 481 and 481). As suggested by Professor Ross Baker, member of the *Building a Safer System*, *supra* note 2 task force, fear of lawsuits is “the biggest barrier” to change (Barbara Sibbald, “Reducing Medical Error: ‘People Doing their Best is Not Enough’” (2002) 167 *Canadian Medical Association Journal* 1047 at 1047. There is also some evidence, however, that physicians exaggerate the risks of liability (See A.G. Lawthers, A.R. Localio & N.M. Laird *et al.* “Physician Perceptions of the Risk of Being Sued” (1992) 17 *J. Health, Politics, Pol’y & Law* 463).

⁹⁰ A fair bit of debate remains concerning which position is more beneficial in the long run. *Supra* note 1,

c) Balancing Systemic Models with Physician Accountability

Either approach will likely give rise to the required data pool on which to conduct error analyses. However, a voluntary, anonymous error reporting system may be more likely to give the required early windfall of data, whereas the modification of professional responsibility will take more time to formulate and take effect, but arguably, will improve physician awareness concerning the significance of error reporting *both* to their patients and administrators. To take advantage of both approaches, a blended strategy might be most suitable, where "external accountability and internal learning and improvements within health-care organizations"⁹¹ are combined to balance individual and systemic aspects, ensuring that both accountability and systemic reform occur synonymously.

This type of synonymous reform is already being contemplated by the recent U.K. report *Making Amends: A Consultation Paper Setting Out Proposals For Reforming the Approach to Clinical Negligence in the NHS*,⁹² where mandatory physician reporting will soon be required to compliment optional, anonymous reporting of less serious adverse events.⁹³ Accountability, therefore, is a necessary ingredient to ensuring that physicians continue to deliver adequate levels of care, however, "to be effective, reforms must encourage systems and organizations to engineer around inevitable human failings."⁹⁴ While we must of course recognize that "to err is human,"⁹⁵ we must also recognize that there are serious human errors that physicians can make that must not be eclipsed entirely by an exclusively systemic focus.⁹⁶

recommends that a mandatory reporting system should be established for medical errors that cause serious injury (at 42). As suggested by David U, the American College of Pharmacists also supports the institution of a mandatory reporting system, provided that, "in the submission of the report, [the reporter] does not incur a penalty on the reporting institution or practitioner..." (*supra* note 84 at 64). However, as pointed out by Michael Cohen in testimony before the Committee on Health Education (U.S.), "to stimulate participation in reporting programs, voluntary, non-punitive reporting has proven to be an effective method for obtaining needed information about errors." (M.R. Cohen, *Testimony before the Committee on Health Education*, Labour and Pension, United States Senate, February 1, 2000).

⁹¹ Bovberg, Miller & Shapiro, *supra* note 2 at 369.

⁹² (London, Department of Health, 2003).

⁹³ See Brian Capstick, "The Future of Clinical Negligence Litigation?" (2004) 328 *British Medical Journal* 57 at 458: "When an investigation shows that something has gone wrong, clinicians will have to disclose this to the patient or family. This will be part of a new statutory duty of candor."

⁹⁴ Jacobi & Huberfelt, *supra* note 2 at 316.

⁹⁵ Alexander Pope, *Essay on Criticism* (London, MacMillan, 1996) at pt.2, l. 325.

⁹⁶ See e.g. Albert W. Wu, "Medical Error: The Second Victim" (2000) 320 *British Medical Journal* 726 where the argument is put forth that a culture of perfection is imposed on physicians

VII. Conclusions

Health care professionals are entrusted with a high degree of responsibility, and when mistakes are made, patients have the potential to suffer high degrees of often undeterminable harm.⁹⁷ Although Canada is arguably “obsessed with its health care system,”⁹⁸ much of that obsession has not resulted in concrete change or the confrontation of serious medical errors. This is not a phenomenon that is unique to Canada, as in the U.K., there has been plenty of frustration concerning a lack of a comprehensive and clearly organized approach to health care reform. As early as 2000, commentators in the U.K. have wanted to know, “[a]re we ready to change or will we procrastinate and dissemble ... It may seem to some that the race for patient safety has just begun, but the patience of the public we serve is already wearing thin.”⁹⁹ This is equally true in Canada, for, after the millions of dollars invested in the Romanow report and other provincial initiatives, the public is expecting rapid and focussed initiatives.

Clearly, however, we do not yet have all the answers. As Canada’s most recent report, *Health Care in Canada, 2004* suggests, we are still in the data gathering stage concerning the nature and causes of medical error. Like the U.K. and the U.S., Canada must quickly decide on the type of error reporting system it wants to have so that an appropriately large pool of data will be generated for assessment. Without a consistently implemented national error reporting strategy, however, medical errors will continue to remain a critical problem with Canada’s health care system.

⁹⁷ *Supra* note 37 at 11.

⁹⁸ *Supra* note 65 at 549.

⁹⁹ Lucien L. Leape & Donald M. Berwick, “Safe Health Care: Are We Up to It?” (2000) 320 *British Medical Journal* 725.

