THE POOR STATE OF HEALTH CARE QUALITY IN THE U.S.:
IS MALPRACTICE LIABILITY PART OF THE PROBLEM OR PART OF THE SOLUTION?

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ABSTRACT

The belief that malpractice lawsuits impede efforts to improve health care quality by encouraging providers to hide mistakes is the conventional wisdom among patient safety advocates and scholars. It also provides the normative basis for efforts currently proceeding at the state and federal levels to curtail medical malpractice exposure. Groups pressing for tort reform, including the American Medical Association, contend that when doctors and other providers are insulated from liability, patients will be better protected from harm.

This article canvasses the evidence bearing on the connection between malpractice exposure and health care quality. Some of this evidence, such as the Harvard Medical Practice Study, shows that the quality of health care improves as the risk of being sued rises; none of it shows that malpractice lawsuits cause the quality of health care to decline. The widely held belief that fear of malpractice liability impedes efforts to improve the reliability of health care delivery systems is unfounded.

The central causes of the high error rates that persist in the health care sector appear to be providers’ defective incentives and professional norms. Providers lose money when quality improves, and their norms discourage the creation of non-punitive working environments in which efforts to improve quality can flourish. The “business case for quality” is missing, and providers attitudes are antithetical to quality improvement. The tort system’s major deficiency is its failure to subject providers to sufficient economic pressure to overcome these impediments. The cause of this shortcoming is the rarity with which injured patients assert legal claims.

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I. Introduction

Malpractice liability is the scourge of modern medicine. Physicians defeated polio, smallpox, whooping cough, measles, and managed care, but the tort system continues to stymie them. Malpractice premiums in some specialties now exceed $200,000 per year. Premium spikes in excess of 100% have been reported for physicians who have never been sued. Demoralized doctors are said to be “going bare,” relocating, retiring, excluding risky services from their practices, and hiding their assets. They are also organizing strikes, protests, and “sick-outs,” and pressing for state and federal malpractice reforms. The American Medical Association (AMA) has declared a malpractice “crisis” in nineteen states, claiming that important health care services are in short supply.\(^3\)

Liability insurance costs created the first malpractice “crisis” of the twenty-first century, but health care providers have other complaints about the tort system as well. They accuse patients of running to plaintiffs’ lawyers whenever bad outcomes occur, even when providers perform flawlessly. They accuse greedy trial lawyers of filing frivolous cases to extort settlements from insurance companies that care more about defense costs than physicians’ reputations. They criticize the trial process, claiming that lawsuits last too long, that plaintiffs’ attorneys use emotional appeals to mislead know-nothing jurors into awarding multi-million dollar verdicts, and that injured patients wind up with too little compensation after paying their lawyers’ eye-popping contingent fees.

For years, health care providers even denied the existence of substandard care. “[T]he profession’s longstanding argument against tort liability had been that medical errors are few, with litigation resulting mainly from rabble-rousing by unscrupulous lawyers and expert

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witnesses.” The AMA finally conceded “that medical mistakes happen—are even common” in 1996, after empirical researchers generated evidence that could be neither refuted nor dismissed. Providers did not abandon their attack on tort liability when the high social cost of medical errors was proved. They changed their tune. Instead of denying that errors occur, providers now assert that tort liability prevents them from improving health care delivery systems by driving error reports underground. A typical example of this view appears in the Institute of Medicine’s (IOM) 1999 report “To Err Is Human”: “patient safety is hindered through the liability system and the threat of malpractice which discourage the disclosure of errors. The discoverability of data under legal proceedings encourages silence about errors committed or observed.” This claim has become the conventional wisdom among public health researchers, doctors, organized medicine, tort reform advocates, and legal scholars. Writings on patient safety routinely identify malpractice reform as a critical component of any attempt to improve the quality of health care. The tort system is always part of the problem—never part of the solution.

The charge that liability impedes quality improvement is interesting for a number of reasons. First, it implicitly admits that health care providers behave in a self-interested fashion. Punishments discourage providers from reporting errors because providers do not want to be punished. The concession is important because health care professionals typically deny that self-interest influences their decisions. They style themselves as patients’ advocates and invariably claim to put patients’ interests ahead of their own.

Once providers admit to being self-interested—particularly in an area involving quality, a core matter of professional competence—the case for external oversight of medical professionals strengthens dramatically. The traditional justification for professional self-regulation is the shared belief that physicians and other providers can be trusted to act for the benefit of others. If that expectation is inaccurate—and the medical profession’s position with regard to patient safety is premised on its falsehood—then the case for vigorous external regulation becomes compelling. Courts, state medical boards, ethics committees, and other administrative bodies should be treating providers much more firmly than they do.

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6 Institute of Medicine, To Err Is Human: Building a Safer Health System 43 (1999).
Second, the assertion that liability impedes progress on the medical error front calls into question the broader policy justification of tort law. Tort scholars believe that liability encourages producers of goods and services to exercise due care by forcing them to internalize the costs of their negligence. If liability actually discourages vendors from taking due care by driving errors underground, this analysis must be reconsidered. Perhaps the standard tort model accurately describes the influence of tort law in some areas of productive activity but not others. Perhaps it is wrong across the board. Doctors and nurses are hardly the only tortfeasors who can hide problems. If punishments are bad because they discourage people from admitting, reporting, and correcting deficiencies, a comprehensive rollback of tort liability might be in order. Alternatively, if these arguments are insufficient to justify wholesale reconsideration of tort law for non-health care defendants, the obvious question is why they should be credited in the health care context.

Third, as shown below, the best available empirical evidence indicates that liability for negligence sometimes improves the quality of health care by motivating providers to do a better job. Consequently, the charge that negligence liability discourages providers from reporting errors, drives them from the profession, and has other negative effects identifies a need for a balanced policy judgment but does not show how the judgment should be made. The mix and availability of services with liability may be better or worse than the mix and availability of services without liability; and the mix and availability of services may vary depending on the details of how liability determinations are made and implemented. Because provider quality varies enormously, the possibility that malpractice liability generates net benefits by driving substandard providers out of the market cannot be dismissed out of hand. Nor can one dismiss the possibility that malpractice liability improves outcomes and lowers costs by channeling patients from low-volume providers to high-volume providers in areas where volume-quality relationships exist. Because liability can have both good effects and bad ones, a sophisticated policy assessment will weigh both its costs and its benefits, and not its costs alone.

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8 Product manufacturers and drug companies can cover up reports of defects and dangerous side effects. Drivers can lie about their sobriety and their speed. Cigarette companies can misrepresent their knowledge of the dangerousness and addictiveness of tobacco products.
Fourth, the charge that liability slows progress by squelching error reports is persuasive only if liability is an important impediment in its own right. If other forces also drive errors underground, a policy decision to eliminate liability might make things worse by extinguishing the positive effects of liability without causing more information about errors to surface. Most calls for reform ignore this problem, even though it is well known that failures to report errors have multiple causes. The causes include a culture of perfectionism inside the medical profession that creates “indelible impressions of fear” by shaming, blaming, and even humiliating doctors and nurses who make mistakes; fragmented delivery systems that require coordination of multiple independent providers; the prevalence of third party payment systems and administered prices; overwork, stress, and burnout; information overload; doctors’ status as independent contractors and their desire for professional independence; the Health Insurance Portability and Accountability Act; a shortage of nurses; underinvestment in technology that can reduce errors, and so

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10 IOM, To Err is Human 2-3 (1999).


13 Joseph P. Newhouse, Why Is There a Quality Chasm?, 21 Health Aff. 13 (2002) (describing the rate of increase of medical devices, drugs, procedures, and knowledge, and explaining that physicians have great difficulty keeping up).

14 Liang, supra, at 350.

15 Id., at 353-357.


on. Both individually and collectively, these factors have discouraged providers from implementing proven safety measures and from developing more reliable delivery systems.\textsuperscript{18} Given the significance of these factors, it is naïve to think that error reporting would improve automatically if the threat of liability were removed.

Finally, most of the tort “reforms” put forward by providers, professional associations, and lobbying groups would not address the alleged tendency of liability exposure to impede error reduction. The most popular proposals (damages caps, credits for payments from collateral sources, heightened requirements for expert witnesses, and limits on contingent fees) have more to do with provider self-interest than health care quality. Their purpose is to reduce insurance costs in the short run, not to improve delivery systems in ways that address low quality care or make harmful errors less common.

Fear of liability has little to power to explain the quality problems that pervade the health care sector. Defective incentives are far more important. For a variety of reasons, the health care marketplace discourages providers from taking due care.\textsuperscript{19} Some payment arrangements even have the paradoxical effect of making it financially advantageous for providers to harm patients. Because removing the threat

\textsuperscript{18} The Veterans Administration spent $478 million over 3 years “to support its national patient safety initiatives.” GAO, VA Patient Safety: Initiatives Promising but Continued Progress Requires Culture Change, GAO/T-HEHS-00-167 8 (2000). Even after spending this mammoth amount, the VA had failed to implement important technologies like bar code medication administration at all its hospitals and had just begun to create a voluntary error reporting system. Id. at 5 & 6.

Computerized decision-support technology was predicted to cost Kaiser Permanente $2 billion over three years. Cathy Tokarski, Medical Error-prevention Strategies Face Barriers to Acceptance, Agency for Healthcare Research and Quality, www.ahrq.gov/news/medscap2.htm (May 2000). Dr. Lucian Leape estimates that about 5 million adverse events and near misses occur each year, and observes that the Aviation Safety Reporting System, the model often touted for health care, costs $70 per error report to run. Leape, Reporting of Adverse Events, supra, at 1636-1637.

See Institute of Medicine, supra note *, at 12-13 (“A number of practices have been shown to reduce errors in the medication process. Several professional and collaborative organizations interested in patient safety have developed and published recommendations for safe medication practices, especially for hospitals. Although some of these recommendations have been implemented, none have been universally adopted and some are not yet implemented in a majority of hospitals.”). See also Id. at 12 (recommendation 8.2: health care organizations should “implement proven medication safety practices.”).

\textsuperscript{19} These reasons include the prevalence of third party payment arrangements, patients’ ignorance, the difficulty of distinguishing better providers from poorer ones, and time-lags between investments and improvements in health. See Part **, infra.
of malpractice liability would not fix these problems, thoroughgoing tort reform is more likely to harm health care quality than improve it.

We do not contend that the civil justice system creates optimal incentives for providers to protect patients from avoidable errors. It does not and, in all likelihood, it never will. Our point is that unless and until changes in compensation arrangements create a “business case for quality,” providers will continue to provide low quality care to many patients and the health care sector will underperform the rest of the economy. We also contend that in the absence of direct economic incentives for providers to exercise due care, removing liability rights is likely to make matters worse, not better, by freeing providers to serve their own interests instead of their patients.

Rather than abolish liability or weaken it to protect the economic self-interest of providers, a sensible policy strategy would meld the strengths of the liability- and systems-based approaches to patient safety. It would ask when and how liability has encouraged providers to develop more reliable delivery systems, and propose reforms designed to strengthen this effect. This Article offers some examples showing how this strategy might work.

This Article proceeds as follows. Part II documents the need to improve delivery systems by summarizing what is known about health care quality and medical error. Part III describes the conventional wisdom that medical malpractice liability impedes the improvement of health care by discouraging health care providers from reporting mistakes and addressing their causes. Part IV examines the available evidence bearing on the connection between tort law and health care quality and argues that malpractice exposure more likely improves the quality of health care than detracts from it. In other words, Part IV shows that the conventional wisdom is at best unsupported and at worst wrong. Part V argues that quality problems are more likely attributable to professional norms and economic incentives than to liability. Part VI begins the project of enhancing the quality-improving force of the tort system by examining the obstacles that currently impede it operation. Part VII suggests some ways the problems identified in Part VI could be addressed. Part VIII offers a brief conclusion.

II. A Primer on Health Care Quality and Medical Error

The medical profession has strong professional norms regarding the importance of delivering high-quality error-free care. These norms are inculcated throughout medical school and residency training. Dr. Atul Gawande aptly captures the basic ethos:

Western medicine is dominated by a single imperative—the quest for machinelike perfection in the delivery of care. From the first day of medical training, it is clear that errors
are unacceptable. . . . [E]very X ray must be tracked down and every drug dose must be exactly right. No allergy or previous medical problems can be forgotten, no diagnosis missed. In the operating room, no movement, no time, no drop of blood can be wasted.20

Unfortunately, the actual experience of patients diverges dramatically from the stated goal of “machinelike perfection in the delivery of care.” The literature on health care quality is replete with statements that look like tabloid headlines: “one-fourth of hospital deaths may be preventable;”21 “180,000 people may die” every year “partly as a result of iatrogenic injury;”22 “one-third of some hospital procedures may expose patients to risk without improving their health;”23 and “medical error is the eighth-leading cause of death in the United States.”24 Health care providers in the United States routinely omit indicated procedures of known value, frequently perform treatments that are unnecessary and inefficacious, and employ practice patterns that vary widely and for no good reason. Adverse drug events are distressingly common.25 Tens of billions of dollars are spent annually on medical services whose value is questionable or non-existent.26

24 Institute of Medicine, To Err is Human (1999).
26 See Hilfiker, supra, at 90 (“[P]erhaps the most frequent result of physician misjudgment is the wasting of money, often in large amounts.”); Milt Freudenheim, Study Finds Inefficiency in Health Care, New York Times, June 11, 2002 (reporting Juran Institute estimate that “$390 billion per year is being wasted on outmoded and inefficient medical procedures”); Midwest Business Group on Health, Reducing the Costs of Poor-Quality Health Care Through Responsible Purchasing Leadership i (2nd printing, Apr. 2003) (updated version of Juran Institute report contending that “$420 billion spent each year” on poor quality health care); Jonathan Skinner and John E.
American health care is also dogged by unacceptably high error rates. In a 1999 report, the IOM concluded that medical errors kill 44,000 – 98,000 Americans and injure hundreds of thousands more every year.\textsuperscript{27} These errors result in staggering social costs—most of which are borne by victims and their families. Serious quality problems afflict every aspect of the American health care system, irrespective of insurance coverage and delivery arrangements. Simply stated, “quality problems … abound in American medicine. The majority of these problems are not rare, unpredictable, or inevitable concomitants of the delivery of complex, modern health care. Rather, they are frighteningly common, often predictable, and frequently preventable.”\textsuperscript{28}

Consider hernia repair. This (relatively simple) surgical procedure, which is one of the “bread and butter” procedures of a general surgery practice, is performed tens of thousands of times every year in the United States. Most general surgeons perform several hundred of these procedures during the course of their careers. The procedure takes approximately ninety minutes, costs several thousand dollars, and fails approximately 10-15\% of the time. Yet, at a small medical center in Toronto, hernia repair takes less than half as long, costs half as much, and has a recurrence rate of only 1\%.

The reasons for this extraordinary performance are simple; physicians at the Toronto clinic “do hernia operations and nothing else. Each surgeon repairs between six hundred and eight hundred hernias a year—more than most general surgeons do in a lifetime.”\textsuperscript{29} Surgery at the clinic is performed according to a standardized protocol by a specialized team of experienced personnel. The result is that these surgeons out-

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\textsuperscript{27} IOM, To Err, supra note **, at 1. These figures have been somewhat controversial. Researchers have argued that many of the patients would have died anyway, or that reviewer assessments are unreliable. See Rodney A. Hayward & Timothy P. Hofer, Estimating Hospital Deaths Due to Medical Errors: Preventability is in the Eye of the Reviewer, 286 JAMA 415 (2001); Christopher M. Hughes, et al., Deaths Due to Medical Errors are Exaggerated in Institute if Medicine Report, 284 JAMA 93 (2000). Those involved in the preparation of the Institute of Medicine report have defended these figures. See Lucian Leape, Institute of Medicine medical error figures are not exaggerated, 284 JAMA 95 (2000). But see Troyen A. Brennan, The Institute of Medicine Report on Medical Errors: Can It Do Harm?, 342 New Eng. J. Med. 1123 (2000).

\textsuperscript{28} Mark R. Chassin, Is Health Care Ready for Six Sigma Quality? 76 Milbank Quarterly 565, 566 (1998)

\textsuperscript{29} Gawande, supra note ** at 38.
perform all other providers of hernia repair in North America, even though several have not completed a general surgery residency and the surgeon-in-chief is an obstetrician. This extraordinary performance demonstrates the potential benefits of an undeviating focus on excellence in the provision of a discrete service or treatment (a “focused factory”).30 These results also point to a phenomenon that has been observed in numerous areas of the economy, including health care: the positive relationship between the volume of services provided and the quality of those services (volume quality relationship).

Volume-quality relationships have been documented for a wide range of medical procedures.31 Consider coronary artery bypass grafting (CABG), a surgical treatment that approximately 600,000 Americans receive every year.32 Researchers have long known that high volume surgeons and hospitals produce significantly better results for CABG patients than low volume providers. The risk of in-hospital mortality can vary by a factor of four.33 Yet low volume providers continue to perform large numbers of CABG procedures, exposing many patients to excessive

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30 See generally Regina Herzlinger, Market-Driven Health Care
33 Michael L. Millenson, Demanding Medical Excellence 192 (U. Chi. Press 1997) (noting quadrupling of risk); Kevin Grumbach et al., Regionalization of Cardiac Surgery in the United States and Canada, 274 JAMA 1282 (1995) (reporting death rates following cardiac bypass surgery were twice as high at California hospitals performing fewer than 100 procedures per year than at hospitals performing 500 or more); Edward L. Hannan, The Relation Between Volume and Outcome in Health Care, 340 New Eng. J. Med. 1677, 1678 (1999) (noting that, in one study of 1989 data, "the risk-adjusted mortality rate for patients of surgeons who performed fewer than 50 [bypass operations] (7.94%) was more than twice the mortality rate for patients of surgeons who performed 150 or more procedures (3.57%)").
risks, and killing an appreciable number of them. The problem is not limited to CABG. A study of patients treated in California in 1997 estimated that more than 600 deaths occurred because patients visited low volume hospitals for a number of procedures for which volume-quality relationships had been established, instead of hospitals that performed these procedures in larger numbers.

To be sure, quality problems are far broader and more pervasive than these examples of volume-quality relationships might suggest. As a 1998 literature review summarized matters, the dominant finding … is that there are large gaps between the care people should receive and the care they do receive. This is true for all three types of care—preventive, acute, and chronic—whether one goes for a check-up, a sore throat, or diabetic care. It is true whether one looks at overuse or underuse. It is true in different types of health care facilities and for different types of health insurance. It is true for all age groups, from children to the elderly. And it is true whether one is looking at the whole country or a single city. … A simple average of the findings of the preventive care studies shows that about 50 percent of people received recommended care. An average of 70 percent … received recommended acute care, and 30 percent received contraindicated acute care. For chronic conditions, 60 percent received recommended care and 20 percent received contraindicated care. The quality problems with American medicine include every conceivable example of overuse, underuse, misuse, and out-and-out error. Among hospitalized patients, these problems result in an “epidemic of potentially preventable iatrogenic death.”

The Institute of Medicine estimates that

37 The Leapfrog Group contends that “over 160,000 deaths that occur [annually] in the ICU [intensive care unit] could be avoided” if all urban hospitals implemented its ICU Physician Staffing Guideline. The Leapfrog Group, Fact Sheet: ICU Physician Staffing 1 (9/02/03).
medical error is the eighth leading cause of death in the United States, ranking ahead of AIDS, motor vehicle accidents, and breast cancer. Preventable nosocomial infections are so common that the Centers for Disease Control estimated that strict adherence to hand-washing procedures alone would save 20,000 lives every year. Non-mortal injuries occur even more often. "[O]ver a million people are injured by medical treatments annually in the U.S."39

Mistakes that occur during hospitalizations are only part of the picture. Additional errors occur during home care, primary care, ambulatory care, and nursing home care. The frequency of errors in outpatient settings has not been studied as thoroughly, but the available evidence suggests that outpatient care is subject to many of the same quality problems that afflict inpatient care.42

Treatment variations are enormous as well, with patients in some areas receiving far higher and far more expensive levels of care than others of similar age and physical condition who live elsewhere—with no effect on outcomes. The result is that “geography is destiny” as far as the medical treatment one receives is concerned. One group of commentators estimated that Medicare could buy every Florida beneficiary who agreed

Physicians and the Public on Medical Errors, 347 N. Engl. J. Med. 1933 (2002) (finding that “42% of the public and more than one-third of U.S. doctors say they or their family members have experienced medical errors in the course of receiving medical care, with significant percentages reporting serious consequences.”).

38 See Centers for Disease Control, Healthy Hands USA, http://www.healthyhandsusa.com/cdc/ (visited October 20, 2003) (“More than two million Americans contract an infection during hospital stays. Of that group, an estimated 90,000 die every year from these infections. Up to 20,000 of these deaths could be prevented by practicing simple hand hygiene procedures, such as those outlined in the new CDC hand hygiene guideline.”); Michael C. Berens, Infection Epidemic Carves Deadly Path, Chi. Trib., July 21, 2002, at 1; Atul Gawande, Hand-washing, New Eng. J. Med. (2004).

39 Although negligence-induced adverse events occur in only about 1 percent of hospitalizations, the mortality and morbidity figures are enormous because there are more than 30 million episodes of hospitalization each year. Id. at 20 (reporting 33 million hospital discharges in 1992).


41 See Elizabeth M. Lapetina and Elizabeth M. Armstrong, Preventing Errors In The Outpatient Setting: A Tale of Three States, 21 Health Aff. 26, 26 (2002) (“little if any research has focused on errors or adverse events occurring outside of hospital settings”).

to receive Minnesota-style health care a fully loaded Lexus and still come out ahead. The same commentators did a series of studies demonstrating that patients in high-care, high-cost areas often fare less well than those who receive less care and consume fewer resources.

Most of the time, these problems occur not because of isolated “bad doctors” or because the necessary information is hard to obtain. Instead, as one commentator cuttingly noted, “from ulcers to urinary tract infections, tonsils to organ transplants, back pain to breast cancer, asthma to arteriosclerosis, the evidence is irrefutable. Tens of thousands of patients have died or been injured year after year because readily available information was not used — and is not being used today — to guide their care.”

A final problem is the lack of information regarding the absolute efficacy (let alone the cost-effectiveness) of many diagnostic tests and medical treatments. Manufacturers must provide evidence of effectiveness to gain regulatory approval for new pharmaceuticals, but no such requirement applies to medical procedures. Consequently, doctors can administer treatments that have never been proven to work — and once these treatments are introduced, they can rapidly become the standard of care. For example, about 300,000 Americans receive arthroscopic knee

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45 Obviously, this generalization has important exceptions. Some bad doctors exist, and information about best practices is sometimes hard to obtain.

46 Michael L. Millenson, Demanding Medical Excellence: Doctors and Accountability in the Information Age 353 (1997) (emphasis supplied). The AMA recognizes the persistence of errors as a problem. See AMA, A Culture of Safety, http://www.ama-assn.org/ama/pub/article/3216-6570.html (“According to a recent study from the national standards-setting organization U.S. Pharmacopeia, while U.S. hospitals and health care systems have improved their track record of reporting medication errors, they continue to make the same mistakes over and over.”)

47 Robert J. Marder, Relationship of Clinical Indicators and Practice Guidelines, 16 Quality Review Bulletin 2: 60, 60 (1990) (discussing lack of evidence showing effectiveness of many treatments and opining that “[m]uch of the inappropriate use of technology results from medical uncertainty”).

48 Jensen & Tinker, supra, at 15-16 (“The truth is that many currently ‘standard’ diagnostic and therapeutic practices, involving huge numbers of patients, high risks, and tremendous costs, rest upon very uncertain foundations with respect to efficacy.”)
surgery for osteoarthritis annually, at an estimated cost of $1.5 billion per year. Yet, a study published in the New England Journal of Medicine in 2002 found that patients who received the surgery handled tasks like walking and climbing stairs less well than patients who did not.\textsuperscript{49} Other common procedures, such as coronary artery bypass surgery and spinal fusion surgery, also fail to help many patients who receive them.\textsuperscript{50} In one recent high-profile example (bone marrow transplant for advanced breast cancer), the treatment provided no benefits, and killed an appreciable number of the women who received it.\textsuperscript{51}

Although hospitals and physicians profess a commitment to providing high quality care, reality lags far behind rhetoric. There are a number of reasons why quality is so variable, including the decentralized and fragmented nature of the health care delivery system, the dominance of third party payers who have historically cared more about costs than quality, the tradition of deference to the medical profession to handle issues of quality, the lack of visibility of the issue for consumers and politicians, the process through which providers are trained and socialized, the presence of multiple agency relationships, and the lack of competitive alternatives to existing coverage and delivery arrangements. The immediate question, given all these market imperfections, is whether medical liability makes matters worse by impeding desirable reforms or exerts pressure to improve by creating incentives to address quality problems. Part III turns to these issues.

III. The Conventional Wisdom: Liability Exposure Impedes Quality Improvement by Discouraging Error Reporting

As noted previously, the conventional wisdom within the health care sector is that malpractice liability makes it more difficult to address problems with patient safety and health care quality by restricting the free

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\textsuperscript{50} Jensen & Tinker, supra, at 19-20; Richard A. Deyo et al., \textit{Spinal-Fusion Surgery—The Case for Restraint}, New Engl. J. Med. 350:7 (Feb. 12, 2004); Abigail Zuger, \textit{New Way of Doctoring: By the Book}, New York Times, Dec. 16, 1997 (reporting on study finding that, although elderly heart attack patients in the U.S. received coronary angioplasty and bypass surgery almost eight times as often as Canadian patients, survival rates a year after the heart attack were about the same for both groups).

\textsuperscript{51} See Michelle Mello & Troyen Brennan, \textit{The Controversy Over High-Dose Chemotherapy With Autologous Bone Marrow Transplant for Breast Cancer}, 20 Health Affairs 101 (2001).
flow of information on the subject. This criticism is an article of faith among health policy experts, and it also finds a ready reception among those who view trial lawyers and the tort system with skepticism or disdain.

The conventional wisdom achieved its greatest political saliency in 1999 when the IOM flatly asserted that “liability concerns discourage the surfacing of errors and communication about how to correct them,” and that “patient safety is [] hindered through the liability system and the threat of malpractice, which discourages the disclosure of errors.” The IOM repeated the charge in 2001, suggesting that, “alternative approaches to liability, such as enterprise liability or no-fault compensation, could produce a legal environment more conducive to uncovering and resolving quality problems.”

Provider organizations have used these conclusions to advance their political agenda of curtailing medical malpractice liability. The AMA claims to oppose tort regulation because it wants to “creat[e] a climate where reporting of errors will occur so that the information can be used to improve the [health care] system and avoid repeating in the future.” The AMA also asserts that “for error reporting systems to be successful, they must be constructed in a non-punitive manner that...

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52 See fn. 6 and accompanying text. See also William B. Runciman and Fiona Tito, Error, Blame, and the Law in Health Care—An Antipodean Perspective, Annals of Internal Medicine 138:12, 974, 978 (2003) (“Blaming and punishing for the inevitable errors that will be made by well-intentioned people working in health care drives the problem of iatrogenic harm underground and alienates those who are best placed to prevent such problems from recurring.”).

53 See, e.g., Newt Gingrich, Saving Lives & Saving Money: Transforming Health and Healthcare 125 (2003) (stating that “patient safety is often weakened by possible litigious implications” of information sharing, citing and quoting To Err is Human); Our Common Good, http://cgood.org/medicine/item?item_id=3396 (reporting survey results that “nearly half of all nurses feel prohibited or discouraged from doing what they think is right for the patient in the way of disclosing and discussing errors because of rules or protocols set up for liability protection,” and that although doctors recognize that frank discussions of adverse events with colleagues can help them improve the quality of the services they deliver, fear of liability discourages them from talking about errors and thinking of ways to reduce them.); A.M.A., Medical Liability Reform Now! 23 (arguing that compared with disciplining physicians, “a better approach to the problem of system errors would be to dispel the fear by physicians, hospitals, and nurses that open discussion of[!] adverse events would be discoverable in lawsuits”).

54 IOM, supra * at 37. See also id. at 19 (“Liability concerns discourage the surfacing of errors and communication about how to correct them.”).

55 See IOM, Crossing the Quality Chasm 219 (2001)

provide[s] appropriate confidentiality protections.”57 The AMA’s official position is that liability has no proper role to play in the regulation of health care professionals.

Front-line health care providers are quite outspoken in advancing the conventional wisdom. Beverly Jones, Vice President and Chief Nursing Officer at the Henry Ford Health System and a former Associate Dean at the University of Michigan School of Nursing, bluntly described “[t]he threat of medical malpractice litigation [as] one of the most obvious barriers to the improvement of safety. . . . [D]isclosing one’s own error or a colleague’s error poses the risk of financial ruin and loss of professional credibility. These risks also serve as disincentives to participate in improvement strategies to reduce the risk of error.”58 Similarly, Dr. Atul Gawande asserted “[t]he deeper problem with medical malpractice suits is that by demonizing errors they prevent doctors from acknowledging and discussing them publicly.”59 These comments represent the views of most medical professionals. As Professor William Sage observed,

The medical profession by and large heard a single message from the IOM’s report, To Err Is Human: that exposed, “punitive” approaches to error detection and correction are inferior to confidential, cooperative efforts from within an expert community. Because physicians regard malpractice litigation as the epitome of punitive, they viewed the 1999 IOM report as further evidence that liability should be curtailed. Reasoning that physicians’ fear of lawsuits prevented them from owning up to mistakes and working to improve quality, they ignored the historical irony that the profession’s longstanding argument against tort liability had been that medical errors are few, with litigation resulting mainly from rabble-rousing by unscrupulous lawyers and expert witnesses. Even [when] confronted with irrefutable evidence that errors are widespread, physicians remain convinced that malpractice liability has no legitimate role to play in quality

59 Gawande, supra note *, at 37.
Among academic commentators, agreement is nearly universal that incident reporting and quality of care will increase only when malpractice liability is curtailed. Professor Brian Liang argues that “current tort law [...] provides strong disincentives to engage in medical error reduction and patient safety” because doctors who report errors may suffer financially. Professor Larry Gostin agrees and asserts that only a public health approach to malpractice can solve these problems. Professor Max Mehlman contends that “to deter poor quality care you have to identify it when it occurs, but the threat of punishment prevents doctors from admitting mistakes, and prevents patients from finding out they have been victims of malpractice, which prevents the system from figuring out how to do things better.”

Professor Troyen Brennan and his various co-authors (who are responsible for the most comprehensive studies of medical malpractice) adhere to the conventional wisdom as well. They assert that malpractice liability “may well stifle efforts to reduce error” because practitioners are wary “of reporting events that may leave them open to accusations of negligence.” “[T]he specter of litigation currently stands as a major barrier to the free flow of information about medical errors. Thus, removing it would align the foci of the compensation and quality

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60 William M. Sage, supra note , at .
61 See, e.g., J.M. Healy et al., Confidentiality of Health Care Provider Quality of Care Information, 40 Brandeis L. J. 595 (2002); D. H. Johnson & D. W. Shapiro, The Institute of Medicine Report on Reducing Medical Error and its Implications for Healthcare Providers and Attorneys, 12 Health Lawyer 1 (June 2000). Although these points are usually stated definitively, as shown by statements quoted in the text, some commentators have offered more qualified claims. See, e.g., James F. Blumstein, The Legal Liability Regime: How Well Is It Doing In Assuring Quality, Accounting For Costs, and Coping With an Evolving Reality In The Health Care Marketplace?, 11 Annals of Health Law 125, 141 (2002) (observing that “current [malpractice] doctrine may well be standing in the way of (instead of advancing) improvements in quality care, precisely the opposite of the objective of the traditional tort system.”).
62 Brian Liang, The Adverse Event of Unaddressed Medical Error, ** J. L. Med. & Ethics 351. See also Brian Liang, Errors in Medicine: Legal Impediments to Reform, 39 (“[P]hysicians with tort liability concerns may be hesitant to report adverse events and medical errors for fear that plaintiffs’ attorneys will have access to this information, thus exposing physicians to liability.”).
64 Case law professor says medical malpractice crisis is the result of an unfair system http://www.cwru.edu/pubaff/univcomm/2003/8-03/mehlman.htm (visited October 30, 2003).
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improvement systems and center them on precisely those injuries that are eradicable.”

“[T]he moral blame and resulting secrecy of the tort system are the antitheses of modern quality improvement. Moving to a system that does not penalize clinicians for reporting adverse events would result in increased reporting and thus increased institutional learning about how to avoid errors in the future.”

In short, “to address the problem of iatrogenic injuries seriously, we must reform the system of malpractice litigation.”

The best evidence of acceptance of the conventional wisdom may be the dearth of commentary disputing it. Even the authors of this article once observed that “because malpractice liability and regulatory sanctions rely on ‘shame and blame’ strategies, they can be counter-productive in that they drive underground those with the information required to enhance quality.”

Professors Timothy Jost and William Sage stand almost alone in being consistently skeptical. Jost writes that “advocates [of the conventional wisdom] do not convincingly explain why health care institutions and professionals will undertake the hard work of looking for and fixing quality of care problems if they no longer have to worry about blame and shame.”

Sage observes that “tort reform is not an intuitive solution to rampant medical error” and that it is unclear why “the medical profession, which historically criticized lawyers for inventing medical errors where none existed, [should] receive even greater protection from lawyers now that we know errors to be widespread.”

The view that liability impedes quality improvements by discouraging error reporting has so many supporters that the decision to

66 Studdert et al., supra, at 28. In Toward a Workable Model, supra, at 228, Studdert and Brennan write. “[b]oth anecdotal and empirical evidence suggest that providers are less willing to disclose information about errors they make or see when a punitive atmosphere prevails.”

67 Mello & Brennan, supra, at 1629.


69 Hyman & Silver, ** at **, note **.


71 William M. Sage, Medical Liability and Patient Safety, 22 Health Affairs 26, 30 (2003). Professor Steven Lubet has also derided the tendency of health care providers to blame malpractice lawyers for quality problems. Lubet, supra note **, at **.
label it the conventional wisdom is apt. Most commentators support the view without qualification. But is the conventional wisdom true? Part IV analyzes the evidence bearing on the connection between tort liability and health care quality to see how closely the conventional wisdom matches up with existing knowledge.

IV. What Do We Know about Medical Liability and Patient Safety?

A. THE CONVENTIONAL WISDOM HAS NEVER BEEN PROVED

Although the conventional wisdom is routinely invoked, it is rarely accompanied by citations to supporting empirical research. For example, in To Err Is Human, the IOM offered no empirical support for its assertion that “patient safety is [] hindered through the liability system and the threat of malpractice, which discourages the disclosure of errors.” In context, the omission is glaring. The IOM report supports the many statements it contains about the frequency and consequences of medical errors with extensive citations to studies. Evidently, its authors thought their criticism of negligence liability was too obvious to require support. Many other writings share this deficiency, asserting that liability impedes the improvement of health care safety without citing authority showing that malpractice exposure has a statistically significant effect.

The dearth of citations is readily explained. No statistical study shows an inverse correlation between malpractice exposure and the frequency of error reporting. Dr. Lucien L. Leape, a strong proponent of error reporting and a leading advocate for patient safety, recently made this point in the New England Journal of Medicine, writing that “[t]he fear of litigation may [] be overblown. No link between [error] reporting and litigation has ever been demonstrated.” Nor does empirical research show an inverse correlation between the severity of malpractice exposure and medical error rates—which is what the conventional wisdom would predict.

Absent any rigorous empirical foundation, the primary basis for the conventional wisdom is its plausibility. Providers say the fear of liability harms the quality of health care because it motivates them to hide mistakes, and the current legal framework does attach penalties to some errors. However, plausibility is one thing and truth is another. To see this,

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72 IOM, supra * at 37. See also id. at 19 (“Liability concerns discourage the surfacing of errors and communication about how to correct them.”).

73 For example, when asserting that “[h]ealth care is not as safe as it should be,” the IOM report cites “[a] substantial body of evidence point[ing] to medical errors as a leading cause of death and injury.” IOM, p. 22.

consider traffic safety, another context where liability rules apply. When drivers face tort liability, their autonomy is restrained. When they do not, drivers can act upon their independent judgments more freely. Applied in this context, the conventional wisdom suggests that relaxing tort laws would improve traffic safety. The accuracy of this prediction is not self-evident. If tort laws were eliminated, many drivers might choose to drive dangerously, e.g., by driving exceedingly fast, by driving when intoxicated, etc., causing safety to decline. Whether tort liability makes our highways safer or more dangerous is an empirical matter that cannot be resolved by speculation.

The same is true of the connection between tort liability and health care quality. Providers may blame the legal system for undesirable behaviors (i.e., failures to report errors and address shortcomings), but these behaviors may occur for other reasons. Providers may also fail to give credit where it is due. By penalizing mistakes, the liability system may reduce their frequency. The view that punishments discourage unwanted behaviors is plausible too, after all. Finally, there is a plausible middle ground as well. Liability rules may encourage providers to take greater care and discourage them from reporting mistakes. The question then becomes whether the effect on patient safety is positive or negative overall.

At the highest level, the critical empirical question is deterrence: Does liability for negligence have sufficient deterrent effect to justify the associated transaction costs and dislocations, including but not limited to those that are part of the conventional wisdom? The Harvard Medical Practice Study (HMPS) studied this issue extensively.\(^\text{75}\) The results are decidedly mixed, but they offer no support for those who argue that malpractice impedes efforts to protect patients.

The HMPS found an inverse relationship between the magnitude of the malpractice risk and the rate of negligent injuries, meaning that as the size of the malpractice risk increased, both the frequency of mistakes and the frequency of negligence declined.\(^\text{76}\) Although the finding was not

\(^{75}\) Interestingly, the Harvard team dismissed the corrective justice goals of the tort system in their original work, although the subject has reappeared in recent scholarship by the team. Compare Mello & Brennan, supra note **, at 54-55 with Measure of Malpractice, supra note **, at 78 (“the value of individualistic corrective justice as a guiding norm for medical liability is no longer very relevant in a world in which the burden of liability is distributed to the broader community through the interplay of malpractice insurance and health care insurance.”)

\(^{76}\) Michelle Mello and Troyen A. Brennan, at 1610 (quoting Paul C. Weiler et al., A Measure of Malpractice, supra, at 129) (“the malpractice risk variable was negatively
statistically significant, the HMPS investigators nonetheless concluded that “the litigation system seems to protect many patients from being injured in the first place. . . Since prevention before the fact is generally preferable to compensation after the fact, the apparent injury prevention effect must be an important factor in the debate about the future of the malpractice litigation system.”77 The HMPS also demonstrated that patients who were the least likely to sue – the aged and the poor – were the most likely to be negligently injured, precisely the result predicted by a standard model of deterrence. Finally, the HMPS found that the experience of being sued “made [doctors] twice as likely to take more time in explaining the risks of treatment to their patients,” precisely the opposite of the effect predicted by patient safety advocates who argue that malpractice liability discourages candor.78 Not surprisingly, the HMPS report recommends that policymakers accept and act on the “indication . . . that malpractice litigation does have an injury prevention effect.”79

As the HMPS team readily admits, the evidence of deterrence they uncovered, although the best available, is both “limited” and “subject to

associated with the proportion of hospitalizations involving adverse events and the proportion of adverse events involving negligence, [but] the association did not achieve statistical significance at the conventional level. The HMPS investigators struggled with how to interpret these results and ultimately settled on this conclusion: ‘Although we did observe the hypothesized relationship in our sample—the more tort claims, the fewer negligent injuries—we cannot exclude the possibility that this relationship was coincidental rather than causal.’”) See also Paul C. Weiler, Medical Malpractice on Trial 90 (1991) (suggesting that the HMPS found “only a fairly modest, though statistically significant, preventive effect of malpractice litigation is discernible in [the] data.”) Weiler et al., A Measure of Malpractice, supra, at 131 (finding that “tort liability cut the frequency of negligence-related injuries by 29 percent per hospital admission and cut the overall rate of medical injuries per admission by 11 percent.”).

77 Id., at 133.
78 Weiler et al., A Measure of Malpractice, supra, at 127.
79 Weiler, A Measure of Malpractice, supra, at 132. In the face of daunting methodological challenges, the HMPS team made several subsequent attempts to model the deterrent effects of medical liability, using four different measures of malpractice risk, two different outcome measures, and two estimation strategies. The team was unable to agree on the optimal specification of the model and on how to interpret the results, so they were never published.

The problems included (1) multiple possible measures of service quality, none of which is clearly superior, that produce different results in regression equations; (2) the ambiguity of the intensity of service measure that showed a strong correlation between tort risk and service quality in the HMPS; (3) multiple possible measures of malpractice risk that yield different results in regression equations; (4) confounding variables, such as the hospital-specific case-mix, that HMPS was unable to control for; (5) the enormous burden of extracting data on adverse events and negligence from hospital files; and (6) the endogeneity of claim rates and error rates, each of which may influence the other. See Mello & Brennan, supra, at 1609-1615.
methodological criticism.” In particular, as they note, the “injury prevention effect” may be stronger than they found it to be because “constraints on the data set combined to reduce rather than enhance the likelihood that such a causal connection would manifest itself.” Yet, all things considered, the evidence of deterrence is surprisingly tenuous, given the salience of malpractice exposure to physicians and other health care providers who, if survey responses are to be believed, “alter[] their behavior in rendering clinical care” because of it. Often-heard complaints about “defensive medicine” only make sense if providers actually are deterred (in fact, only if they are over-deterred) by the risk of liability.

For current purposes, the more significant point is that none of the empirical evidence generated by the HMPS supports the conventional wisdom that malpractice liability undermines health care quality. No study has shown that exposure to liability has a statistically significant negative effect on the frequency of error reports. No study has shown that liability exposure causes health care quality to decline overall. Instead, the best available evidence shows that liability makes a modest positive contribution to patient safety. The available empirical evidence does not support the definitive and unqualified claims made by patient safety advocates and other critics of the tort system.

B. TORT LIABILITY AND ANESTHESIA SAFETY: A POSITIVE RELATIONSHIP

Patient safety advocates often use the history of anesthesia to demonstrate that health care providers can greatly reduce the frequency of iatrogenic injuries by making delivery systems more impervious to human errors and mechanical problems. As it happens, the example also shows that tort liability can motivate providers to identify shortcomings in delivery systems and correct them. Anesthesia — the practice area in which the systems-based approach to patient safety has been applied with the greatest success — actually undercuts the conventional wisdom.

80 Id.
81 Id.
82 Bryan A. Liang, Error in Medicine: Legal Impediments to U.S. Reform, 24 J. Health Pol. Pol’y & L. 27, 31 (1999) (citing authorities); Our Common Good, supra at ** (“In summary, it is clear that the practice of medicine and the delivery of medical care are significantly influenced and shaped by fear of malpractice claims.”)
83 See, e.g., Leape, supra note , at ; Don Berwick, supra note , at ; Gawande, supra note , at .
Malpractice lawsuits made it advantageous for anesthesiologists and find and address the causes of mistakes.

Surgical anesthesia once exposed patients to serious risks of injury and death. Studies conducted in the middle of the 20th century put the mortality rate from anesthesia anywhere from 1 in 852 administrations to 1 in 6,048, meaning that 2,000 to 10,000 anesthesia-related deaths occurred per year, about half of which were preventable. Anesthesia mishaps also exposed physicians to serious malpractice risks because the injuries patients suffered were exceptionally severe and they had no pre-existing relationship with the anesthesiologist to temper their willingness to bring suit. Today, by contrast, anesthesia is exceptionally safe. In approximately a decade, mortality rates fell from 1 in 10,000-20,000 administrations to 1 in 200,000, a ten- to twenty-fold improvement.

As anesthesia became safer, lawsuits against anesthesiologists became less frequent. In Massachusetts, claims for hypoxic injury, which were extremely expensive, disappeared in 1988, when virtually all anesthesiologists started using pulse oximetry and capnography. Deaths and permanent brain injuries from anesthesia mishaps constituted a diminishing fraction of claims, and far fewer claims resulted in insurance payouts. The fraction of total medical malpractice insurance costs attributable to anesthesia-related claims fell from 11 percent to 3.6 percent.

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85 Ellison C. Pierce, Jr., The Patient’s Safety in Anesthesia, Resident & Staff Physician 51, 51 (1989).
86 E. A. Brunner, The National Association of Insurance Commissioner’s Closed Claim Study, in Pierce & Cooper, at 17, 25 (reporting that “anesthesia injuries accounted for 3% of all paid claims, but for a disproportionately large 11% of all dollars indemnified”); id. 28 (reporting that “claims arising from anesthesia procedures are more costly than those arising from any other procedure group”).
87 Leape, supra, at 107; Ellison C. Pierce, Jr., Anesthesia: Standards of Care and Liability, 262 JAMA 773 (1989). A recent article suggests that anesthesia safety has not improved as much as advertised. R. S. Lagasse, Anesthesia Safety: Model or Myth, 70 Anesthesiology 1609 (2002) (finding an anesthesia-related mortality rate of 1 per 13,000 anesthetics). One commentator suggests that safety has improved markedly and that currently mortality rates reflect the willingness of anesthesiologists to handle much frailer patients than before. See James E. Cottrell, Anesthesia-Related Mortality and New Directions: Uncle Sam Wants You, 67 ASA Newsletter (Jan. 2003).
88 Pierce, Anesthesia: Standards of Care and Liability, supra, at 773.
89 F.W. Cheney, Anesthesia Patient Safety and Professional Liability Continue to Improve, ASA Newsletter 61(6):18-20, 1997 (“In the 1970s, 56 percent of all claims were for death or permanent brain damages as compared to 45 percent in the 1980s and 31 percent in the 1990s.”).
90 Id. (“[T]he proportion of claims for death and brain damage that resulted in payment to the plaintiff has declined from 74 percent in the late 1970s to only 40 percent in the early 1990s.”).
over fifteen years.\textsuperscript{91} “[A]nesthesia medical liability premiums also declined significantly.”\textsuperscript{92} The Controlled Risk Insurance Company reduced premiums for anesthesiologists at Harvard hospitals from $17,690 to $11,750 in one year.\textsuperscript{93} “The 2002 average premium was $18,000—about the same as in 1985 and much lower than for other specialties.”\textsuperscript{94}

Anesthesia’s high level of reliability distinguishes it as the only medical practice area that approaches industrial standards of quality.\textsuperscript{95} For this reason, patient safety advocates routinely use anesthesia to show the gains that can be made by improving health care delivery systems. By studying closed insurance claims and other records, anesthesiologists discovered that human errors caused an extremely large fraction of anesthesia-related injuries.\textsuperscript{96} They then redesigned their procedures and tools so that fewer errors would occur and so that errors were less likely to harm patients. For example, they shortened residents’ hours, promulgated practice guidelines, mandated the use of safety precautions, standardized the operation of machines, and outfitted machines with safety devices. The rates of morbidity and mortality associated with surgical anesthesia fell drastically. Today, adverse events and emergencies are so rare that

\textsuperscript{91} Id.

\textsuperscript{92} Ellison C. Pierce, Jr., ASA Monitoring Guidelines: Their Origin and Development, 66:9 ASA Newsletter (Sept. 2002), www.asahq.org/Newsletters/2002/9_02/feature7.htm. See also P.R. McGinn, Practice Standards Leading to Premium Reductions, Am. Med. News., Dec. 2, 1988: 22 (reporting a 20% drop in malpractice premiums for 320 Massachusetts anesthesiologists who followed the patient monitoring standards set by the ASA, and a 15% discount for Oregon anesthesiologists who adhered to the same standards); Medical Malpractice Rates Drop for Anesthesiologists, Las Vegas Sun, May 14, 2003 (reporting that premiums would fall 34 percent for anesthesiologists covered by the Medical Liability Association of Nevada); K. B. Domino, Increasing Costs of Professional Liability Insurance, ASA Newsletter 67(6): 6, 2003 (reporting that, although premiums have risen, “loss of insurance and rate increases have not be as dramatic in anesthesiology as in obstetrics and some other surgical specialties”).

\textsuperscript{93} Pierce, Anesthesia: Standards of Care and Liability, supra, at 773.

\textsuperscript{94} See Stephen C. Schoenbaum and Randall R. Bovbjerg, Malpractice Reform Must Include Steps to Prevent Medical Injury, 140 Annals of Internal Medicine 51 (Jan. 6, 2004).


\textsuperscript{96} E. A. Brunner, supra, at 29 (“Personal error on the part of the physician is a prime factor involved in medicolegal risk.”). See also David A. Davis, An Analysis of Anesthetic Mishaps from Medical Liability Claims, in Pierce & Cooper, eds., at 31, 39 (reporting that “at least 80% of [hypoxia] claims” were “caused by human rather than mechanical failure”).
Much of the credit for improving anesthesia safety belongs to the American Society of Anesthesiologists (ASA). In 1983, it launched a patient safety campaign that included the creation of a Committee on Patient Safety and Risk Management, sponsorship of an international symposium on anesthesia morbidity and mortality, and initiation of a study of malpractice claims closed by insurance companies that continues to this day. The campaign eventually generated a set of mandatory anesthesia patient monitoring standards, which the ASA adopted in 1985.

Why did the ASA act when it did?98 According to Ellison C. Pierce, Jr., the leader of the patient safety campaign, “two major factors” forced the organization’s hand: malpractice claims and negative publicity. “Anesthesiology [malpractice] premiums were … among the very highest—in many areas, two to three times the average cost for all physicians. By the early 1980s, anesthesiologists recognized that something drastic had to be done if they were going to be able to continue to be insured.” Matters became especially dire after “April 22, 1982, when ABC [television] broadcast … ‘The Deep Sleep, 6,000 Will Die or Suffer Brain Damage[,]’ … which described a number of anesthesia mishaps that appeared to have been preventable. The reaction of the public was strong; for months after the broadcast, patients appearing in the operating room for anesthesia had questions about its safety.”99

Decisive pressure to protect patients thus came from outside the medical profession, not from within it. Practicing anesthesiologists tended to minimize the frequency and severity of errors and to oppose reforms. Dr. Pierce is candid about this fact. He reports that he and other physicians had long known that many or even most anesthesia-related deaths and injuries were preventable but had done little to stem the tide.

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98 It is striking that other associations of medical professionals have failed to follow the ASA’s lead. See David C. Classen & Peter M. Kilbridge, The Roles and Responsibility of Physicians to Improve Patients Safety within Health Care Delivery Systems, 77 Academic Medicine 961, 967 (Oct. 2002) (discussing the ASA’s campaign and observing that “few major patient safety initiatives have been launched by other physician professional societies”).

He also identifies professional resistance to practice guidelines as a serious impediment to patient safety.

What were the challenges? Clearly, it was obvious that many, if not most, physicians resented being told what to do. This, of course, was true in all of medicine, from the early guidelines in cardiology concerning emergency treatment of a myocardial infarction to the listing of indications for carotid artery surgery. It was assumed by many practitioners that any guidelines or standards would be fodder for the plaintiff’s attorneys. This, of course, has not been the case.\(^{100}\)

As the last two lines suggest, practicing anesthesiologists also blamed their woes on lawyers who represented malpractice plaintiffs. Such behavior is well documented, and not restricted to anesthesiologists.\(^{101}\)

Until the 1980s, anesthesiologists made important but insufficient efforts to study the frequency of anesthesia mishaps, to identify their causes, and to establish treatment guidelines and take other prophylactic steps.\(^{102}\) The ASA succeeded in dragging a reluctant profession into the future of patient safety only because, after two insurance “crises” and a hostile television program, the cost of ignoring quality problems was unacceptably high. “[H]ospitals and physicians [became] increasingly aware of the need to reduce and control those mishaps and iatrogenic events that are preventable … in part [because of] the dramatic rise in medical malpractices claims and suits in the United States.”\(^{103}\) By leading its members instead of following them, the ASA protected millions of patients from harm and thousands of anesthesiologists from malpractice claims.

The ASA’s actions cast serious doubt on the conventional wisdom that malpractice lawsuits impede error reduction. Anesthesiologists figured out how to prevent errors from harming patients because of

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100 Id.
101 See, e.g., Davis, supra, at 37 & 40 (reporting that anesthesiologists responded to malpractice suits by heaping scorn upon plaintiffs’ lawyers, insurance companies, and a small number of “bad apples” in their profession).
102 The history of the ASA’s efforts is described in Ellison C. Pierce, Jr., The Development of Anesthesia Guidelines and Standards, 16 Quality Rev. Bull. 2: 61 (1990).
103 James F. Holzer, *Current Concepts in Risk Management*, in Pierce & Cooper, eds., 91, 91. Holzer directly attributes the rise of risk management as a specialty within hospitals to increases in liability insurance costs. Id. at 96-98. He further contends that risk managers can make valuable contributions to error-reduction. Id. at 98-108.
malpractice exposure, not in spite of it. When they did so, lawsuits tailed off because uninjured patients had no reason to sue.

Case studies also show direct connections between liability and improved delivery systems for anesthesia. In one reported incident, a patient died because an anesthesiology resident accidentally turned off the oxygen supply instead of the nitrous oxide supply. The hospital’s risk managers immediately revealed the error, settled the claim, and assembled a team to investigate the cause of the mistake. The team found that the machine involved was a British model that both “differed significantly from other anesthesia machines in use at the hospital” and had no “built-in fail-safe or alarm systems.” Hospital administrators removed the machine from service, reviewed the hospital’s policy on the use of oxygen analyzers, replaced older machines with newer models, and saw that all machines had alarms that sounded when the mixture of oxygen and nitrous oxide was unsafe. All this activity occurred after the malpractice settlement, not before it.

The history of anesthesia safety describes a feedback loop running between litigation and service quality. When errors are frequent or have serious consequences for patients, lawsuits are brought, saddling providers with higher costs in the form of judgments, settlements, legal fees, and (mainly) higher insurance premiums. Providers tolerate these costs until it becomes cheaper for them to improve quality than to deal with claims. They then figure out what is wrong with their delivery systems and improve them. As quality rises and errors diminish, consumers litigate less often and insurance premiums and other liability costs fall. Fred Cheney, the former Chair of the ASA Committee on Professional Liability, understood the feedback loop perfectly: “The relationship of patient safety to malpractice insurance premiums was easy to predict. If patients were not injured, they would not sue, and if the payout for anesthesia-related patient injury could be reduced, then insurance rates should follow.”

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104 David M. Gaba, *Anaesthesiology as a model for patient safety in health care*, British Medical Journal, Mar. 18, 2000 (“The malpractice crisis galvanized the [anaesthesiology] profession at all levels, including grass roots clinicians, to address seriously issues of patient safety…. [P]erhaps most crucially, strong leaders emerged who were willing to admit that patient safety was imperfect and … could be studied and interventions planned to achieve better outcomes.”); Millenson, *The Silence*, supra, at 108 (noting that anesthesiologists acted to improve patient safety only when pushed by adverse publicity about anesthesia accidents and rising malpractice premiums).

105 Holzer, supra, at 109.

Recent developments raise concern that some doctors have forgotten Cheney’s wisdom. Many elective surgeries that once took place in hospitals under the supervision of trained anesthetists now occur in physicians’ offices without them. “Between 1992 and 1999 office-based liposuction increased 389 percent; breast augmentation, 413 percent; and eyelid surgery, 139 percent.”

Forty-one thousand office-based surgical facilities performed twenty percent of all elective surgeries in 2000, including 37 percent of cosmetic procedures and 28 percent of reconstructive plastic surgery. Because physicians’ offices are essentially unregulated, many solo practitioners perform these surgeries without the assistance of anesthesiologists. Some contend that this exposes patients to excessive risks. The Florida Society of Anesthesiologists—an interested group, admittedly—asserts that “[t]he national rate for anesthesia-related deaths in outpatient surgery is about 1 in 400,000[, b]ut in Florida the rate is about 1 in 8,500 for office surgeries.”

If office-based anesthesia is, in fact, so dangerous, lawsuits may be needed to motivate solo practitioners to improve their performance.

C. THE HISTORY OF DISCLOSURE AND MEDICAL LIABILITY IN THE U.S.

Malpractice lawsuits were almost unheard of before the 1840s. They were a common species of litigation by that century’s end, however, and during the 1900s their frequency rose dramatically. If the conventional wisdom is right, one might expect providers’ willingness to discuss medical errors to reflect this change. That is, one might expect providers to have become more reluctant to identify and reveal errors over time. They should have investigated mistakes and talked about them freely when malpractice lawsuits were rare, and they should have become ever more tight-lipped as litigation became common. In the “golden age of medicine” before the malpractice era, open communication about errors and related matters like treatment risks should have been the norm.

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108 Id.
The history of physician disclosure does not support this hypothesis. As Professor Steven Lubet writes,

Forgive me if I appear cynical, but is it really fair to blame malpractice lawyers for physicians’ unwillingness to tell patients about mistakes? Was there ever a golden age, before rampant malpractice litigation, when doctors communicated freely with their patients, openly acknowledging errors and confronting mistakes in the spirit of humble cooperation? I don’t think so. Neither does Dr. Jay Katz, who wrote *The Silent World of Doctor and Patient* in the 1980s, long before the current flood of malpractice cases. If anything, the days before the malpractice explosion were characterized by less communication from doctors, who then routinely refused to acknowledge even the possibility of uncertainty.  

In fairness to proponents of the conventional wisdom, Dr. Katz focused on the historical failure of physicians to disclose risks, including the risk of error, *before* performing medical procedures. He did not discuss the frequency or content of communications that occurred between doctors and patients *after* medical procedures injured patients. Yet, it is impossible to read his book and not think, as Professor Lubet does, that *ex post* conversations about such matters were rare, and that they rarely included candid disclosures of errors or negligence. Dr. Katz’s thesis is that physicians wanted patients to trust them blindly and used silence about all technical aspects of treatment to achieve this goal. It would be remarkable if a practice of full and candid disclosure of errors *ex post* co-existed with one of near silence on all matters *ex ante*. Dr. Katz’s observation that physicians maintained power over patients by donning a “mask of infallibility” makes the combination seem extremely unlikely.

If malpractice litigation did cause the demise of a practice of complete disclosure of mistakes *ex post*, one would also expect to find mention of this in historical writings on the medical profession. The leading works on the early history of malpractice litigation are by Professors James Mohr and Kenneth Allen De Ville. A search of their

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111 Lubet, supra, at 1195. Professor Lubet goes on to suggest “that doctors, being human, are simply reluctant to admit mistakes to their patients, and instead seize upon any available rationalization. Today, the excuse is malpractice liability. In the old days, it was the patients’ own welfare—they would not heal as rapidly, it was said, if they lost confidence in their physicians.” *Id.*


writings turned up no indication that physicians once freely investigated errors and disclosed them to patients, but stopped doing so for fear of malpractice liability. The omission is telling because these scholars spend many pages explaining the effects malpractice lawsuits did have on doctors’ practices. For example, they caused doctors to ask patients for liability waivers and bonds, to avoid patients (mainly the working class and the poor) who were thought likely to sue, to pressure other physicians to refrain from testifying as expert witnesses, and to lobby state legislators for reforms. Yet, neither Professor Mohr nor Professor De Ville asserts that malpractice lawsuits ended a practice of discussing errors candidly.

To the contrary, both scholars contend that doctors frequently failed to deflate patients’ rising expectations by explaining the limits of their knowledge and technologies. A few physicians showed patients frequency tables of poor outcomes associated with procedures like amputation and bone-setting, but most did not. A nineteenth century treatise admonished surgeons to “be honest with their patients, apprising them of the difficulties of the case and the uncertainties of perfect results. . . . They should be candid in regard to their deficiencies, claiming no more than they can perform, no more knowledge than they possess.”\textsuperscript{114} The advice was needed because many members of the profession engaged in puffery.

Mohr and De Ville also document the medical profession’s history of denying errors, of demonizing malpractice plaintiffs and their lawyers, of conspiring to make it hard for plaintiffs to find expert witnesses, and of threatening to leave patients in the lurch by abandoning their practices. Thus, the consistent record of the medical profession is to oppose attempts to impose accountability, whether for bad outcomes or for inadequate disclosure of risks. As such, it is hard to credit the claim that physicians at one time were enthusiastically communicating with their patients. It is equally hard to believe physicians would begin doing so if the risk of liability were lifted.

If anything, medical liability has encouraged better \textit{ex ante} communication about risks and benefits and fuller \textit{ex post} communication of mistakes. The AMA’s 1847 Code of Medical Ethics required doctors to \textit{withhold} information that might undermine patients’ confidence, such as uncertainty about the right course of action or the existence of divergent opinions.\textsuperscript{115} Judicial decisions imposing legal liability for the failure to obtain informed consent led to a change in this rule and fostered greater

\textsuperscript{114} De Ville, at 202 (quoting Milo McClelland, Civil Malpractice (1877)).
\textsuperscript{115} Katz, at 20-22.
The Principles of Medical Ethics, adopted by the AMA in 1980 and supplemented thereafter, now explicitly recognize the importance of obtaining informed consent, and (revealingly) specify that the requirement to do so “is based on ‘social policy’ generated by forces outside the medical profession.”

The AMA’s modern ethical guidelines also require physicians to disclose mistakes, as do the modern rules governing nurses and hospitals. Disclosure does not always occur and fear of malpractice liability may affect its frequency or comprehensiveness. Even so, the rise of malpractice litigation as a social phenomenon preceded the development of disclosure requirements and account for their promulgation. Medical professionals and medical societies are consistently behind the curve. They have never led the charge to provide information about risks and errors to patients.

D. COMPARATIVE LAW PERSPECTIVES

One can also assess the merits of the conventional wisdom through a comparative law lens. If the prevailing view is correct, countries where malpractice suits are relatively rare should have fewer medical errors and higher levels of communication about errors than the U.S. The U.K. is one such country. It has dramatically lower rates of malpractice litigation and offers physicians dramatically lower malpractice premiums. Those who espouse the conventional wisdom should therefore predict better handling of errors in the U.K. than the U.S.

116 Of course, informed consent is not operating all that well – not surprising given that it was forced upon providers by a legal system they both distrust and despise. See Charles H. Braddock et al., Informed Decision Making in Outpatient Practice: Time to Get Back to Basics, 282 JAMA 2313 (1999).


118 AMA, Code of Medical Ethics, Opinion E-12 (issues March 1981; Updated June 1994) (“Situations occasionally occur in which a patient suffers significant medical complications that may have resulted from the physician’s mistake or judgment. In these situations, the physician is ethically required to inform the patient of all the facts necessary to ensure understanding of what has occurred.”)


120 Joint Commission on Accreditation of Healthcare Organizations, Standard RI.1.2.2 (2001). See also Brian A. Liang, Health Law & Policy 96 (2000) (explaining that JCAHO accreditation is a practical condition for participating in the Medicare program).

121 Danzon, supra, at 1357, reports that in 1987 physicians in the U.S. were “at least 5 times more likely to be sued than physicians in Canada or the UK.” See also Jost, supra, (1990), at 51 (reporting that malpractice litigation is much less frequent in the U.K. than the U.S., and that recoveries in England were much smaller than those in the U.S.).

Comparative data on error rates in the two countries are scarce, partly because the study of health care quality in the U.K. is in its infancy. This itself raises questions about the conventional wisdom. Given the rarity of malpractice litigation in the U.K., why aren’t health care providers there gathering error-related data routinely (or even as often as providers in the U.S.)? Official publications acknowledge that error rates in the U.K. have not been studied with care. They also state that under-reporting of errors is widespread. Given the relative infrequency of malpractice lawsuits in the U.K., other forces must account for this.

The evidence that is available suggests that, insofar as error rates are concerned, the U.K. looks much like the U.S. In 2000, the Chief Medical Officer of the National Health Service (NHS) estimated that 850,000 serious adverse health care events occur in NHS hospitals each year, half of which are thought to be preventable. Medication errors are thought to “account[] for around a quarter of the incidents which threaten patient safety in each country.” Whether the subject is inappropriate coronary angiography, coronary bypass grafts, or anesthesia mortality, error rates in the two countries seem to be about the same.

malpractice premiums of £195 for doctors and £75 for dentists, with no price differentiation by practice area).

123 Paul Barach and Stephen D. Small, How the NHS can improve safety and learning, 320 BMJ 1683, 1684 (2000) (“little comprehensive research on adverse events in health care has been carried out in the United Kingdom”).


126 Building a Safer NHS, supra, at 11. See also L. M. Ross et al., Medication errors in a paediatric teaching hospital in the UK: five years operational experience, 83 Archives of Disease in Childhood 492, 492 (2000).


128 Ross Holland, Anesthesia-Related Mortality in Australia, in Analysis of Anesthetic Mishaps (Ellison C. Pierce, Jr., and Jeffrey B. Cooper, eds) 61, 66 (1984) (reporting a mortality rate for anesthesia of “1 in 10,000 administrations”); Ronald A. Green and Thomas H. Taylor, Analysis of Anesthesia Medical Liability Claims in the United Kingdom, 1977-1982, in Pierce & Cooper, eds., at 73 (observing that anesthesia was identified as the sole cause of death in 1 in 10,000 patients in the U.K. “but may have contributed to death in 1 in 1,700”). Green & Taylor further note that mortality cases represent the “tip of the iceberg in respect to anesthetic mishaps in the U.K.,” and that “many patients … are ‘resuscitated’ and exhibit a considerable degree of damage”).

129 Charles Vincent et al., Adverse events in British hospitals: preliminary retrospective record review, 322 BMJ 517, 518 (2001) (“We estimate that around 5% of the 8.5 million patients admitted to hospitals in England and Wales each year experience preventable adverse events, leading to an additional three million bed days.”).
When it comes to communication, physicians in the U.K. are disinclined to admit medical errors or discuss them with patients even though they face much lower risks of malpractice suits. At hospitals that formally mandate error reporting, between one-third and one-half of all patients were not informed that errors had taken place. Physicians in the NHS also have created a “culture of blame” and “have avoided the tough questions of how safety is to become more central to their thinking and behaviour.” None of this evidence suggests that malpractice litigation stifles a natural tendency to report medical mistakes.

E. DISCLOSURE AND ERROR REPORTING BY SPECIALTY, LOCATION, AND TYPE OF ERROR

The consequences of medical errors range from no harm to minor short-term inconveniences to major injuries to death. If the conventional wisdom were accurate, one might expect considerable variation in the willingness of health care providers to disclose and report errors, depending on the risks of litigation and the associated stakes. For example, one might expect providers to report and disclose errors more often when injuries are minor or when patients are elderly, poor, or otherwise ineligible for large damage awards. Similarly, it is clear that the risks of malpractice liability vary systematically based on a provider’s specialty and geographic location. One might also expect the frequency of disclosure and error reporting to vary inversely with these risks. We have found no evidence that the predicted patterns prevail.

Medical errors come in three types: adverse events, no-harm events, and near misses. An adverse event is one in which an error harms a patient. For example, a patient with a known allergy may be given a drug that triggers an allergic response, and thus injures the patient. In a no-harm event, a mistake is made but a patient avoids injury as a matter of

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131 Ross, at 494; S.M. Selbst et al., Medication errors in a pediatric emergency department, 15 Pediatric Emergency Care 1 (1999). These studies counted near-misses as a medical error, and it is unclear whether the hospital required reporting of such cases. However, many reports that should have occurred did not.
132 Barach & Small, supra, at 1684.
133 Although they blame the tort system with impeding quality improvements, Runicman & Tito, supra note at 974, also note that even in countries that use “no-fault” compensation systems, “few initiatives to improve safety eventuate.”
134 Malpractice premiums vary dramatically by specialty. Surveys of physicians document significant variation in perceived risk of malpractice claim. Weiler et al., A Measure of Malpractice, supra, at 117 (internal medicine and associated specialties identified as “low-risk” practice areas, general surgery and associated specialties as “medium-risk,” and orthopedic surgeons, neurosurgeons, and obstetricians as “high-risk.”).
luck or chance. For example, a contraindicated treatment is provided, but the patient does not suffer the expected adverse consequences. A near miss occurs when a mistake is made but is caught before treatment occurs. For example, a doctor may prescribe a drug that should be withheld from a patient but the hospital’s pharmacist may catch the error and refuse to dispense it.

No-harm events and near misses occur much more frequently than adverse events and are important sources of information about the reliability of health care delivery systems. For this reason, researchers emphasize the importance of learning about them, studying them, and correcting them. Because these errors do not injure patients, no harm events and near misses are not potential sources of malpractice liability and are less likely to provoke feelings of guilt or shame. Evaluations of these mistakes also are less likely to be tainted by hindsight bias, which may cause negligence to be found more often when patients are known to have suffered.

Because providers face no liability for no-harm events and near misses, if the conventional wisdom were correct, one would expect providers to report them, study them, and address them aggressively. In fact, providers appear to give near misses and no-harm events less attention than adverse events, which they also rarely report.

Consider a salient anecdote. Dr. Michael Leonard, an anesthesiologist and chief of surgery for Kaiser Permanente in Denver, accidentally gave a patient a paralyzing agent instead of the reversal agent he meant to administer. The drugs were kept side by side in the same drawer and had similar packaging. Dr. Leonard simply reached into the drawer and grabbed the wrong one. Fortunately, the paralyzing agent did not harm the patient. When Dr. Leonard discussed the blunder with his partners, he learned that four of five had previously made the same mistake. None of the other physicians thought to volunteer this information or to devise a systemic solution, even though no liability was

136 P. Barach & S. Small, Reporting and preventing medical mishaps: lessons from non-medical near miss reporting systems. 320 BMJ 759-763 (2000); Jeffrey B. Cooper, Toward Prevention of Anesthetic Mishaps, in Pierce & Cooper, eds. 167, 181 (emphasizing importance of studying “minor errors and failures”).
137 Heidi Wald and Kaveh G. Shojania, Incident Reporting, in AHQR, Evidence Report/Technology Assessment, No. 43 (DATE).
138 To Err Is Human, supra, at 29. (noting that only 5.5% of inpatients experiencing an adverse drug reaction were reported).
involved. Only when Dr. Leonard took the initiative did a hospital pharmacist change the label on the paralyzing agent and put it in a separate drawer.\textsuperscript{139}

More systematic research confirms this pattern. A survey by the Institute for Safe Medication Practices found that “it is more likely for staff to report errors that actually reach the patient and cause harm” than for staff members to report other mistakes.\textsuperscript{140} The number of respondents who thought it “very likely” that practitioners would report harmless errors ranged from a high of 30 percent for “[e]rrors that reach the patient but cause no harm” to a low of 8 percent for “[p]otentially hazardous situations that could lead to an error.”\textsuperscript{141} Simply stated, “most errors and safety issues go undetected and unreported, both externally and within health care organizations.”\textsuperscript{142}

A similar dynamic operates with regard to “old” errors. Providers could learn a great deal about the origins of errors by studying patients’ charts, as public health researchers have.\textsuperscript{143} If liability were an important impediment to this approach, providers could focus on records sufficiently dated that the statute of limitations has run. The literature on medical malpractice and patient safety provides no indication that hospitals or other providers have systematically studied “closed” charts.\textsuperscript{144}

There are a variety of reasons why providers might conclude that review of closed charts is not cost-effective. Chart review is not always illuminating. Charts may lack contain the information needed to identify mistakes, and the state of medical science can change before the statute of limitations runs. Providers may be satisfied their concurrent review practices adequately handle the problem.

The more important point is that, once again, the risk of liability turns out to be a relatively unimportant factor in the decision-making of individual providers. As such, one should not expect the elimination or restriction of liability to have much of an effect on the patient safety efforts of individual providers. In short, when it comes to preventing providers from addressing medical error, tort liability has neither bark nor

\textsuperscript{140} ISMP Survey, supra.
\textsuperscript{141} Id. (emphasis deleted).
\textsuperscript{142} Id. at 37.
\textsuperscript{143} Many investigators, including the team that produced the HMPS, have used old files to estimate the frequency of patient injuries and medical negligence.
\textsuperscript{144} However, there is evidence that many hospitals are reluctant to review such charts when payers ask them to do so, because the review is costly and unreimbursed. \textit{See} ****.
One should not expect providers to report, study, or address no-harm events and near misses more fully if tort liability were eliminated or restricted than they do today.

F. DISCLOSURE AND ERROR REPORTING BY PROVIDERS THAT ARE EXEMPT FROM TORT LIABILITY

If the conventional wisdom were accurate, one might expect to find cultures of safety, good communication, and superior commitments to quality in practice areas where doctors, nurses, and other individuals do not face any malpractice suits. One such place is the Veterans Health Administration (VHA), which runs 173 medical centers, more than 771 ambulatory care facilities and clinics, 134 nursing homes, and many other operations. The VHA served more than 3.4 million veterans in 1998. Veterans who are injured during treatment can sue the VHA under the Federal Tort Claims Act (FTCA), but they cannot sue doctors or nurses who are VHA employees. These veterans also receive free remedial treatments, and many receive monthly disability stipends as well. Veterans suffering iatrogenic injuries can obtain these benefits without proving fault.

Because the FTCA precludes individual provider liability, the conventional wisdom leads one to predict that the VHA would have high levels of error reporting and a continuous strong commitment to quality. History paints a very different picture. Although VHA facilities have improved remarkably in recent years, for decades they suffered the same shortcomings in the areas of data collection and analysis, systems

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145 See also Saks, supra note **, at 1286–87 (“Perhaps the tort system achieves what deterrence it does by the unpleasantness of its operation—at least as that is experienced or imagined by defendants. The tort system is a mouse with an otherworldly roar.”).

146 Id.

147 28 U.S.C.A. ** (19**).

148 See Thomas K. Kruppstadt, Determining Whether a Physician is an Independent Contractor in a Medical Malpractice Action Under the Federal Tort Claims Act, 47 Baylor L. Rev. 223, 226 (1995) (“As a U.S. employee, a physician is immune from individual malpractice liability.”); Steve S. Kraman and Ginny Hamm, Risk Management: Extreme Honesty May Be the Best Policy, 131 Annals of Internal Medicine 963, 966 (1999) (doctors employed at VA hospitals do not pay malpractice premiums, but are subject to error reporting and other forms of professional discipline). ; Albert W. Wu, Handling Hospital Errors: Is Disclosure the Best Defense?, 131 Annals of Internal Medicine 970, 971 (1999) “[G]overnmental physicians are protected from personal liability [by the FTCA].”)
improvement, and service quality as other institutions. When patients were injured, VHA hospitals made “no organized effort . . . to standardize or track the notification of affected patients.” Moreover, recent quality improvements have resulted mainly from pressure by politicians, administrators, and external reviewers. Health care professionals within the VHA did not exert significant influence. Even today, a punitive and fear-inspiring “shame and blame” culture permeates the VHA, despite the complete absence of malpractice risk for individual providers.

Worse still, until quite recently, VHA hospitals had “long [been] notorious for serious lapses in medical safety.” During the 1970s and 1980s, official reports indicated the existence of significant quality problems in facilities serving veterans’ health care needs. For example, a 1985 GAO report found numerous, serious deficiencies in VHA performance and monitoring of quality assurance activities. Congress issued its own critical report on the quality of care rendered by the VHA that year. Dissatisfied with the efforts of the VHA to improve care, Congress enacted legislation requiring the compilation and analysis of “mortality and morbidity data for surgical programs, and selected VAMC data for specific surgical procedures.” Congress also directed the GAO to evaluate error reporting within the VHA. In 1987, the GAO issued a report finding that VHA facilities were significantly under-reporting patient incidents.

In the late 1980s and 1990s, these developments led to increased external oversight of the VHA, a series of reports by the VHA affirming its commitment to quality, and several reorganizations of VHA offices responsible for quality assurance. The VHA also instituted a

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149 See Robert Pear, Report Outlines Medical Errors in V.A. Hospitals, New York Times, Dec. 19, 1999, P. 1 (attributing to Dr. James E. McManus, medical inspector for the Department of Veterans Affairs, the opinion that “the prevalence of errors at Veterans hospitals was similar to that at hospitals operating in the private sector).

150 Steve S. Kraman and Ginny Hamm, Risk Management: Extreme Honesty May Be the Best Policy, supra note 1, at 965.


152 OIG, Quality Management in the Department of Veterans Affairs Veterans Health Administration, 8HI-A28-072 (Feb. 18, 1998) (summarizing GAO, VA Has Not Fully Implemented Its Health Care Quality Assurance Systems (1985) (finding that VA medical centers [VAMCs] had not implemented required quality assurance [QA] programs, and “that the OMI [Office of Medical Inspector] was not adequately evaluating the effectiveness of VAMCs’ QA programs.”)).


154 OIG, Quality Management, supra note 1, at .

155 OIG, Quality Management, supra note 1, at .
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comprehensive risk management program requiring disclosure of medical errors to patients.\textsuperscript{156}

These recent efforts are paying off. Reports on adverse drug reactions and other medical errors have increased dramatically.\textsuperscript{157} VHA facilities, which scored below other hospitals in JCAHO ratings until 1990, obtained higher scores than other hospitals during 1991-93 and equal scores thereafter.\textsuperscript{158} VHA’s re-engineered systems improved its performance so greatly that, in 2000, VHA outperformed hospitals serving Medicare FFS patients on 12 of 13 quality indicators.\textsuperscript{159} Although VHA facilities continue to have problems,\textsuperscript{160} in some respects they are now leaders in quality assurance.\textsuperscript{161}

\textsuperscript{156} The program directs personnel to improve delivery systems, to report adverse events, to study adverse events for the purpose of improving delivery systems, to disseminate information about improvements throughout the VHA, and to inform patients and their families about injuries resulting from adverse events and available options for recourse. Dept. of Veterans Affairs, VHA Manual 1051/1; 1998 (stating that when an accident or negligence injures a patient, “the medical center will inform the patient and/or the family, as appropriate, of the event, assure them that medical measures have been implemented, and that additional steps are being taken to minimize disability, death, inconvenience, or financial loss to the patient or family.”).

\textsuperscript{157} Id. “Following increased emphasis on adverse drug event reporting, VHA managers stated that between 1988 and 1992 adverse drug reaction reports increased from 22 a year to about 4,000 a year.” Robert Pear, \textit{Report Outlines Medical Errors in V.A. Hospitals}, New York Times, Dec. 19, 1999, P. 1. Between June 1997 and December 1998, “the first 19 months of a new policy that requires employees to report medical errors and ‘adverse events’,” VHA undertook a comprehensive self-examination that documented 3,000 mistakes resulting in more than 700 deaths, a mortality rate of 24 percent.

\textsuperscript{158} JCAHO ratings reflect the efforts of VHA hospitals to improve. “In FY 1996, VHA facilities’ average JCAHO Hospital Accreditation Program scores were 94 out of a possible 100 percent, the highest ever,” and “[n]ine VAMCs received ‘accreditation with commendation’ which is . . . awarded when an organization has demonstrated exemplary performance in complying with Joint Commission standards.”


\textsuperscript{160} See Laura A. Petersen et al., \textit{Regionalization and the Underuse of Angiography in the Veterans Affairs Health Care System as Compared with a Fee-for-Service System}, 348 New Engl. J. Med. 2209 (2003) (finding that underutilization of angiography is significantly greater in VHA facilities than in fee-for-service Medicare hospitals).

\textsuperscript{161} GAO, \textit{VA Patient Safety: Initiatives Promising but Continued Progress Requires Culture Change}, GAO/T-HEHS-00-167 5 (2000). Progress with this program was slower than expected, however. After the “VA reported that during a BCMA pilot test . . . medication errors were reduced by about 70 percent[, s]ystemwide implementation of BCMA was scheduled for June 30, 2000.” When that date arrived, however, “only 79 of 137 facilities ha[d] fully implemented BCMA” and “9 facilities ha[d] not implemented BCMA in any area.” Id. They have tested and deployed a bar code medication administration (BCMA) system to reduce medication errors and to police drug
The improvements in service quality at VHA facilities are impressive and laudable. By and large, however, forces outside the VHA and VHA administrators brought them about. The medical professionals within the VHA simply failed to address the quality problems in the system. There is even evidence that they continue to resist the adoption of patient safety measures that were forced upon the VHA by a fed-up Congress.162

VHA medical professionals faced no tort liability for negligence, but they did not spontaneously create a culture in which doctors and nurses routinely reported errors and worked hard to develop better delivery systems. Congress, the public, the press, and certain VHA administrators were the quality watchdogs.163 Indeed, the medical interactions. VHA has also advanced the practice of using “predictive models [of] risk-adjusted surgical outcomes as a means for assessing quality of surgical care. . . . This data enables VHA clinicians to more accurately determine when both poor and exceptional outcomes are the direct result of a surgical team’s skill and competence.162 As the GAO noted,

VHA top managers need to recognize and appreciate the fact that the several QM [quality management] processes and methodologies, and the strong centralized QM oversight and control that VHA adopted in the period from 1985 to 1995, were developed in response to Congressional and public perceptions that VA did not practice sound and effective patient care. These perceptions were based on the reality of a few very seriously flawed cases that prevailing VHA QM processes failed to recognize or address.”

GAO, VA Patient Safety: Initiatives Promising but Continued Progress Requires Culture Change, GAO/T-HEHS-00-167 5 (2000). In 1997, OIG observed that consistent implementation of VHA QM policies by clinicians “has always been, and continues to be, a problem. Inconsistent and ineffective policy adherence, plus the failure to use the latest available information to improve systems, render policies ineffective and create the impression that QM efforts are wasted.” In testimony delivered to Congress in 2000, the GAO reported, “VA will face significant challenges to ensure the success of its patient safety effort. In particular, establishing a culture of safety . . . will require sustained commitment to effect permanent change.” A follow up letter identified the problem more precisely:

VA needs to overcome obstacles that impede the move from a “blame and shame” way of handling adverse events to a culture of safety that looks openly at how and why adverse events occur and how systems can be improved to prevent them in the future. . . . VA must convey the message to all its employees that patient safety is everyone’s responsibility. . . .

The GAO closed its letter by noting that the VA would soon survey its employees to learn whether they felt “safe enough to report adverse events.” GAO, Response to Questions from Hearing on Patient Safety and Quality of Care at VA Facilities, supra, pp. 3-4.

162 In needing “pushes” from external forces demanding quality improvements, the VHA resembles private health care providers. See Neils F. Jensen and John H. Tinker, Quality in Anesthesia Care: Lessons from Industry and a Proposal for Valid Measurement and
professionals working in VHA facilities created a long-lasting punitive culture that discouraged transparency, error reporting and disclosure.\footnote{GAO, VA Patient Safety: Initiatives Promising but Continued Progress Requires Culture Change, GAO/T-HEHS-00-1677 (2000) (suggesting that if VHA leaders consistently communicated a strong pro-safety message, a cultural transformation might occur in 5 to 7 years.)} The existence and persistence of this culture in the absence of personal legal liability for mistakes undermine the conventional wisdom’s claim that malpractice exposure poisons a well that would otherwise be pure.

\section*{G. DEFENSIVE MEDICINE AND LIABILITY}

Proponents of the conventional wisdom often cite “defensive medicine” as an example of the tendency of tort liability to degrade health care quality. Defensive medicine occurs when a provider orders a test or procedure that has little or no utility for a patient solely to reduce the risk of a lawsuit.\footnote{GAO, VA Patient Safety: Initiatives Promising but Continued Progress Requires Culture Change, GAO/T-HEHS-00-1677 (2000) (suggesting that if VHA leaders consistently communicated a strong pro-safety message, a cultural transformation might occur in 5 to 7 years.)} Doctors, medical societies, insurers, and tort reform groups argue that the defensive medicine is widespread.\footnote{See, e.g., Associated Press, U.S. Doctors Do More Breast Cancer Tests (Oct. 22, 2003) (reporting on study finding that “American doctors do twice as many tests to find the same number of cancer cases as physicians in Britain,” and citing “greater fear of malpractice suits in this country” as a cause).} Common Good, an organization that opposes the use of courts to regulate physicians, contends that defensive medicine costs more than $100 billion per year.\footnote{Philip K. Howard, Legal Malpractice, Wall St. J., January 27, 2003, available at http://cgood.org/news-all/item?item_id=17248.}

The empirical evidence supporting claims of defensive medicine is far from conclusive, and it appears that Common Good’s claims are grossly exaggerated.\footnote{See Patricia M. Danzon, Liability For Medical Malpractice, in Handbook of Health Economics, A.J. Culyer and J.P. Newhouse, eds., 1355 (2000).} “Most defensive medicine studies have failed to demonstrate any real impact on medical practice arising from higher malpractice premiums.”\footnote{Michelle Mello & Troyen E. Brennan, Deterrence of Medical Errors: Theory and Evidence for Malpractice Reform, 80 Tex. L. Rev. 1595, 1607 (2002)} In 2003, the Congressional Budget Office
studied Medicare patients treated for a broad range of conditions. It “failed to find any impact of state tort laws on medical spending.” 170

The difficulty of proving that malpractice exposure generates a particular level of defensive medicine arises because providers may have many reasons for performing “unnecessary” tests and procedures, including greater risk-aversion, a difference of opinion as to comparative utility, and the desire to generate income. As such, it is problematic to blame the liability system as the sole cause of spending on unnecessary procedures and tests.

An alternative formulation of the defensive medicine claim argues that malpractice liability and high insurance premiums cause providers to abandon high-risk specialties and to flee states with pro-patient tort regimes. For example, the AMA contends that family physicians are refusing to deliver babies and that access crises exist in 19 states. 171 Again, the supporting evidence is shaky. A 2003 GAO report found isolated examples of access problems in some rural areas, but it also found that Medicare patients continued to receive high-risk procedures at stable or rising rates in so-called “crisis” states. 172 Moreover, even if evidence of significant access denials existed, it would show only that the tort system, mediated through the cost of malpractice coverage, has a deterrent effect. A reduction in service availability could mean that inferior providers are leaving a field. The assertion that access reductions are always bad rests on an unarticulated (and indefensible) assumption that providers have an absolute and unrestricted right to determine the scope and location of their practices.

Finally, if one assumes for the sake of argument that defensive medicine and physician flight are genuine problems, the conventional wisdom seems less persuasive, not more. The conventional wisdom denies that tort punishments deter providers from making mistakes. Yet, complaints about defensive medicine and physician flight make sense only if providers respond to punishments rationally, that is, by avoiding them. But if providers are rational, they should also seek to avoid liability by reducing both the frequency of errors and the severity of the harm errors

171 A.M.A., Medical Liability Reform Now! 5 (Oct. 21, 2003) (www.ama-assn.org/ama1/pub/upload/mm/-1/mir2004.pdf). See also id., 2 (asserting that more than 25% of health care institutions have reacted to the liability crisis by cutting back on services an/or eliminating some units”).
cause. The defensive medicine critique of tort liability assumes that rational providers respond to liability risks only by taking steps that harm patients. This is implausible.¹⁷³

If tort reformers were genuinely worried about defensive medicine and genuinely desired to prevent it, they would offer vastly different proposals from the ones they now endorse. For example, a concern about unnecessary tests and procedures might lead them to call for evidence-based treatment guidelines specifying that certain tests need not be performed. A concern about impaired access might lead them to propose premium subsidies for obstetricians and other providers in high-risk fields.¹⁷⁴ Instead, tort reformers propose caps on non-economic damages and contingent fees, federal reforms, and other measures that are poorly adapted to the problems of defensive medicine and provider flight.¹⁷⁵ It is particularly hard to reconcile the complaint that providers are fleeing pro-plaintiff states with calls for tort reform at the federal level.

H. ACTUAL PRACTICES OF DISCOVERING AND DISCLOSING ERRORS

The conventional wisdom posits that liability encourages providers to ignore errors and to hide mistakes of which they become aware. Ignorance and secrecy are said to be dominant strategies because they shield providers from liability.¹⁷⁶ Ignorance and secrecy can either reduce the likelihood that patients will learn about errors and sue or make it harder for patients to establish causation.

Ignorance and secrecy certainly are possible responses to liability risks, but they are not the only choices available. Investigation and disclosure are options as well.¹⁷⁷ These alternatives also come in various degrees. Consider disclosure. One can reveal an error to one’s

¹⁷³ See Timothy S. Jost, Assuring the Quality of Medical Practice: An International Comparative Study 51 (1990) (discussing salience of malpractice penalties to physicians as source of quality improvements in diverse areas).
¹⁷⁴ Schoenbaum and Bovbjerg, supra, suggest that payers could subsidize the malpractice premiums of physicians who make patient safety enhancements.
¹⁷⁶ A dominant strategy is one that yields an expected payoff higher than any other strategy, no matter what strategy one’s opponent chooses.
¹⁷⁷ Holzer, supra, at 108-109, describes a case study in which risk managers at a large teaching hospital fully disclosed an act a negligence that caused a patient’s death and settled the claim “equitably … within weeks of the mishap” (original emphasis). They then followed up by identifying the cause of the mishap and taking remedial steps.
colleagues, to one’s patient, or to both. One can be candid and lay out everything one knows, or one can be strategic and say only certain things. One can admit error and apologize, admit error but not apologize, or apologize but not admit error. Finally, when disclosing, one can offer or not offer compensation, and one can be more or less generous when doing the former. In practice, providers vary tremendously in their choice of strategy.

In a survey of risk managers at a random sample of hospitals, “[v]irtually all . . . reported disclosing harms to patients at least some of the time, and 80 percent had disclosure policies in place or under development.”¹⁷⁸ Fifty-four percent of the respondents said their hospitals routinely told patients or their families when patients were harmed by care. Only five percent of risk managers said their hospitals never disclosed mistakes.¹⁷⁹

Hospitals also varied tremendously in what they disclosed. The most common elements were an explanation, an undertaking to investigate the incident, an apology, and acknowledgement of harm. Relatively few respondents reported that a typical disclosure included a declaration of responsibility for the harm or a promise to share investigation results with the patients or their families. However, 17% of the respondents indicated that disclosures at their hospitals routinely included both a declaration of responsibility and a promise to share the results of any investigation with the patient. A majority of hospitals also waived the costs of treatment associated with the error, but few offered compensation or referrals to support groups, regulatory agencies, or lawyers.¹⁸⁰

Disclosure to co-workers is also frequent. A study of physicians in training found that “[m]istakes were discussed in attending rounds in 57% of cases and at the morning report or morbidity and mortality conference in 31% of cases.”¹⁸¹ One of the seminal books on medical sociology focuses on how error is formally and informally recognized, discussed, and addressed in a surgical residency training program.¹⁸²

The frequency of disclosure belies the assertion that, in the face of liability risks, secrecy is the only viable course. The diversity of existing practices shows that deciding how to respond to errors and liability risks is not a simple matter. Risk managers appear to have widely varying ideas

¹⁷⁸ Lambe et al., at 78-79.
¹⁷⁹ Id., at 75.
¹⁸⁰ Id., at 75.
¹⁸¹ Albert W. Wu at al, Do House Officers Learn from Their Mistakes? 265 J.A.M.A. 2089 (1991). Although some disclosures to co-workers are immune from discovery, the protections are far from complete, and vary depending on state law. See Liang, supra note 1; IOM, supra note 1, at 119.
¹⁸² Charles Bosk, supra note 1, at 1.
about the optimal approach.  The statement “liability causes providers to do X,” is obviously a dramatic over-simplification of what occurs in the real world.

A growing body of evidence also suggests that hiding mistakes is not necessarily cost-minimizing. Providers that discuss mistakes with patients openly and forthrightly may get sued less often than providers that hide them. As Professor Haavi Morreim has noted, “often, the strongest predictor of whether a physician will be sued is the extent to which patients feel they are being treated with honesty, respect, and personal interest.”

Consider the experience of the Veterans Affairs Medical Center in Lexington, Kentucky. “In 1987, after losing two malpractice judgments totaling more than $1.5 million,” risk managers adopted a new policy of identifying and investigating accidents and incidents of malpractice. The policy included a practice of disclosing substandard conduct even when patients and their caregivers neither knew about it nor would likely have discovered it on their own. Hospital employees even tracked down

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183 Ethical disclosure requirements applicable to doctors, nurses, and hospitals may drive some observed behavior. See supra notes 115-117 and accompanying text.
184 See Lubet, supra, at 1195-1195 (reporting that supporters of JCAHO’s new disclosure policy “note that candor also tends to reduce malpractice claims”); William H. Sage, Medical Liability & Patient Safety, 22 Health Aff. 26, XX (2003) (“Malpractice suits are often prompted by the desire to obtain explanations for unexpected tragedies or to overcome failures of empathy and communication by physicians.”); Ellen Wright Clayton et al., Doctor-Patient Relationships, 69 in F.A. Sloan, et al., Suing for Medical Malpractice (1993) (finding that “problems with communication between doctors and patients were often crucial factors in precipitating individuals to file suit”). See also Wendy Levinson et al., Physician-Patient Communication: The Relationship with Malpractice Claims Among Primary Care Physicians and Surgeons, 277 JAMA 553 (1997) (studying communication styles of primary care physicians and surgeons).
185 E. Haavi Morreim, Holding Healthcare Accountable 21 (2001). See also Hickson et al., supra, at 1361 (reporting that 24% of families that filed malpractice claims relating to perinatal care said “they filed when they realized that physicians had failed to be completely honest with them about what happened, allowed them to believe things that were not true, or intentionally misled them,” and that 20% said “they filed when they decided that the courtroom was the only forum in which they could find out what happened from the physicians who provided care”); id., at 1362 (concluding that “communication problems between physicians and their patients contribute to many decisions to file malpractice claims”).
186 Id. at 964.
discharged patients, gave them the facts, and “persuade[d] the occasional reluctant victim to accept financial compensation.”\textsuperscript{187}

This disclosure practice constituted a complete reversal of the Lexington facility’s prior method of responding to medical errors, which “was an adversarial combination of little disclosure and much opposition.”\textsuperscript{188} It is also noteworthy for two other reasons: the practice was unique among VHA facilities when adopted, and it did not precipitate a liability crisis. To the contrary, although the number of claims increased—an obvious implication of a policy to reveal mishaps patients would not have learned about by other means—the policy saved money overall by enabling the Lexington facility to resolve claims much more cheaply than other VA facilities.\textsuperscript{189} Other hospitals have adopted similarly expansive disclosure strategies with similarly positive results.\textsuperscript{190} These reports find support in studies suggesting that patients who are dealt with openly and honestly are less likely to sue.\textsuperscript{191}

Businesses outside the health care industry have had analogous experiences. In 1991, the Toro Company, a manufacturer of lawncare products, switched from a strategy of defending all claims aggressively to a less confrontational approach. By 1996, the average lifespan of its cases had dropped from 24 months to 4 months, average payouts had fallen from $68,368 to $18,594, average costs and fees had gone from $47,252 to $12,023, and average total cost per claim had declined from $115,620 to $30,617.\textsuperscript{192} Reflecting the improvement, Toro’s liability carrier reduced its premiums by $1.8 million over three years. Overall, the conciliatory approach saved Toro an estimated $75 million between 1992 and 1999.

A practice of dealing with errors honestly and forthrightly may be less expensive than a policy of hiding them, but Professor Brian Liang contends that this option is not available to insured providers. He bases this conclusion on the fact that medical malpractice policies typically require policyholders to refrain from making statements and taking other actions that would undermine carriers’ ability to defend claims. Liang


\textsuperscript{188} Cohen, supra, at 1451.

\textsuperscript{189} Id. (“Compared with 35 other Veterans Affairs medical centers in the eastern United States, the Lexington center has an average workload and is in the top quartile for number of claims filed and the bottom quartile for payments.”); Wu, Handling Hospital Errors, supra, at 971.

\textsuperscript{190} Id. (“An honest and forthright risk management policy that puts the patient’s interest first may be relatively inexpensive.”) It may also generate good will and preserve the caregiver’s role.

\textsuperscript{191} Lambe et al, supra, at 80.

\textsuperscript{192} Cohen, supra, at 1460-1461.
argues that this requirement means that providers jeopardize their coverage by dealing with errors openly and forthrightly.\textsuperscript{193}

If Liang is right, the desire to maintain insurance coverage creates a strong disincentive for disclosure. However, although his analysis sounds plausible, Liang cites no cases in which insurers disclaimed coverage for the reason he identifies. Because many hospitals disclose errors routinely – and some disclose them extensively – one would expect to find at least one such case if any existed. Similarly, one would expect to find evidence of adverse insurer behavior (including reservation of rights letters) in continuing education materials aimed at medical malpractice and insurance lawyers. We were unable to locate any instances of such behavior by liability insurers – suggesting that the “problem” is more theoretical than real.

Liang’s argument also omits an important step. It is far from clear that courts would allow insurance carriers to disclaim coverage when providers disclose mistakes. JCAHO accreditation standards, ethics rules governing medical professionals, and some state laws require disclosures. These requirements, which insurance companies know about when writing coverage, embody important public policies. Courts could easily conclude that public policy considerations prohibit carriers from withdrawing coverage when providers tell patients about mistakes.

In sum, the conventional wisdom dramatically oversimplifies and overstates the relationship between liability and secrecy. Neither liability itself nor related insurance concerns inevitably drive providers to hide errors. Many providers hide or ignore mistakes, but many also disclose them, and disclosures come in varying degrees of comprehensiveness. Secrecy may be a strategy some providers chose, but others have opted for honesty and openness, with good results. This diversity of disclosure strategies suggests that liability is not a substantial factor driving secrecy. The decision to communicate or keep quiet is a strategy choice that the existence of tort liability, standing alone, may have little power to explain.

I. SUMMARY OF THE EVIDENCE

The conventional wisdom is that medical malpractice liability impedes the improvement of health care quality by discouraging providers from reporting mistakes. Although it is widely accepted, the conventional wisdom has little support. No empirical study has yielded a negative correlation between the intensity of the malpractice risk and the frequency

of error reporting. Nor has any study shown that liability correlates inversely with health care quality. The authors of the Harvard Medical Practice Study reached the opposite conclusion, finding that liability deters errors and protects patients with some frequency.

A good deal of other evidence undermines the conventional wisdom as well. Anecdotal reports show that lawsuits sometimes motivate providers to address long-standing problems and that high malpractice premiums account for dramatic improvements in anesthesia safety. Lawsuits appear to have increased communication between physicians and patients about treatment risks by creating the doctrine of informed consent. Lawsuits appear to have encouraged communication about errors, by causing professional and industry associations to promulgate guidelines requiring disclosure. Error reporting is not more frequent in the U.K. than the U.S., even though malpractice suits are far more common in the latter. If anything, systems for gathering information about errors and health care quality are more developed in the U.S., suggesting that liability and provider interest in errors correlate positively. Reports of near misses and no harm events are rare even though these mistakes do not saddle providers with liability. Under-reporting and a punitive practice culture were serious problems at VHA hospitals, even though the FTCA protected doctors and nurses who work there from malpractice suits. Finally, the diversity of disclosure practices prevailing at hospitals across the U.S. shows that secrecy is not the only plausible response to liability. Providers may even fare better by disclosing errors than by hiding them.

In sum, the case for the conventional wisdom has not been made and the best available evidence actually undermines the conventional wisdom. The view that liability exposure hinders quality improvement by driving errors underground has been accepted uncritically. When considered carefully, it is no more plausible, and is, in fact, less plausible, then the assertion that liability protects patients by deterring mistakes.

If the liability system is not responsible for the continuing failure of providers to improve health care quality, what is? And why is the positive impact of tort law on health care quality so weak? Parts V and VI address these questions.

V. Professional Norms and Economic Incentives as Causes of Quality Problems

The existence of high error rates in health care should surprise no one. High error rates are predictable whenever human beings provide services via complex delivery systems. Human beings routinely make mistakes – even when they exercise due care. Health care systems are
exceptionally complicated. Consequently, the many frailties that afflict human behavior—including sensory limitations, flawed decision heuristics and empirical theories, information overload, emotions and other distractions, fatigue and other physical problems, defective motivations, training limitations, and forces beyond human control—have ample room to operate. The result is that mistakes are inevitable in the delivery of health care services.

The surprising thing, in the health care sector and elsewhere, is that consistent high-quality performance ever occurs. Errors are inevitable, but error detection, correction, and prevention are not. All three activities require continuous commitment, money, and hard work. Yet, many industries outside the health care sector have brought error rates under control. They have designed delivery systems that achieve “six sigma” levels of quality, where defects occur fewer than four times in every million opportunities.

Transporting the error rates that are common in the health care sector to other commercial settings dramatizes the strides other industries have made.

If the performance of certain high-reliability industries, whose standards of excellence we take for granted, suddenly deteriorated to the level of most health care services, some astounding results would occur. At a defect rate of 20 percent, which occurs in the use of antibiotics for colds, the credit card industry would make daily mistakes on nine million transactions; banks would deposit 36 million checks in the wrong accounts every day; and deaths from airplane crashes would increase one thousand-fold.

194 For example, Bates and Leape have identified ten points at which errors can occur in the system of drug administration in a modern hospital. David Bates and Lucien L. Leape, Results from Medication Error Study, Journal of General Internal Medicine (1995) **

195 See, e.g., Albert W. Wu at al, Do House Officers Learn from Their Mistakes? 265 J.A.M.A. 2089 (1991) (“Mistakes are inevitable in the practice of medicine because of the complexity of medical knowledge, the uncertainty of clinical predictions, time pressures, and the need to make decisions despite limited or uncertain knowledge.”); Gawande, supra note , at 55-56 (“[A]ll doctors make terrible mistakes. . . . [V]irtually everyone who cares for hospital patients will make serious mistakes, and even commit acts of negligence, every year”); Id., at 25-34 (describing training methods for new residents that create manifold opportunities for errors).

196 Mark Chassin, Is Health Care Ready for Six Sigma Quality?
An error rate of 20 percent would be intolerable in the business settings identified, but error rates as high as 70 percent have been observed in health care.

High error rates should be intolerable in health care. Providers have hundreds of millions of opportunities to deliver health care services every year. A one percent error rate means millions of mistakes, many of which have significant potential to harm patients. The history of anesthesia safety shows that health care providers can do better. Significant variations in error rates across providers show this too. It is therefore natural to ask why health care quality is lagging. The question has several answers, two of which we concentrate on here: professional norms and economic self-interest.

A. PROFESSIONAL NORMS OF MEDICINE

To correct errors, one must identify them first. Unfortunately, errors often hide from view. They can be especially hard to spot when superior performance can generate bad results and inferior performance can generate good results. This is true in health care. Many patients die even when given the best of care, and some patients survive despite providers’ mistakes. Because neither death nor survival is a perfect marker for service quality, effort is needed to identify inferior procedures and mistakes.197

To identify superior procedures and providers, one may have to conduct statistical studies that aggregate large numbers of patients and adjust for pre-existing health risks. This was true for CABG providers. Until studies were run that compared surgeons and cardiac care units and that adjusted for patients’ physical condition, abnormally high mortality rates for CABG patients escaped everyone’s attention. CABG providers attributed negative outcomes to nature until studies forced them to focus on themselves, their institutional arrangements, and their surgical procedures.

Health care providers are rarely trained or equipped to identify iatrogenic injury. Consequently, they often miss mistakes.198 Health care providers also rarely benchmark their performance against others’.

197 IOM, To Err Is Human, at 29: “Some errors are also difficult to detect in the absence of computerized surveillance systems. In a study of 36,653 hospitalized patients, Classen et al. identified 731 ADEs [adverse drug events] in 648 patients, but only 92 of these were reported by physicians, pharmacists, and nurses. The remaining 631 were detected from automated signals, the most common of which were diphenhydramine hydrochloride and naloxone hydrochloride use, high serum drug levels, leukopenia, and the use of phytonadione and antidiarrheals.”

Consequently, they often think existing rates of mortality and morbidity are natural and irreducible when they actually reflect inferior performance. Human frailties exacerbate this tendency. Even when it is clear that iatrogenic injury occurred and that treatment decisions were erroneous, health care providers are extraordinarily reluctant to identify these problems. They appear to have a reverse-hindsight bias that causes them to regard preventable injuries as inevitable. Whatever the cause, the tendency of providers to underestimate the frequency of iatrogenic injury is well known.

Now consider error correction. If people must be trained to identify mistakes, they must be motivated to report them and address them as well. Many workers are naturally inclined to ignore mistakes or hide them. “Errors bring up feelings of shame, and we would rather not confront the bad feelings associated with our failures as individuals.” In many organizations, including hospitals, workers also face pressures (having nothing to do with liability) to hide errors and other problems that come to their attention, and to avoid accepting responsibility or blame. Error correction also receives less emphasis than it should because human beings working in organizations tend to focus on successes. A 99% success rate and a 1% failure rate are factually equivalent, but the psychological implications of focusing one or the other can be profound.

199 Weiler et al., A Measure of Malpractice at 119.
200 See Leslie D. Goode, et al., When Is “Good Enough”? The Role and Responsibility of Physician to Improve Patient Safety, 77 Academic Medicine 947, 949 (2002) (noting tendency of physicians to “believe that the care they provide is uniformly good and therefore not in need of change”).
201 Amy C. Edmondson, quoted in Craig Lambert, Obtuse Organizations: Secret Errors Kill, 103 Harvard Mag. 11 (2001). See also Holzer, supra, at 101 (describing strong emotional impact accusations of error have on anesthesiologists).
202 Karen Hopper Wruck and Michael C. Jensen, Science, Specific Knowledge, and Total Quality Management, 18 J. Accounting and Econ. 247 (1994) (concluding that “politics, power, [and] fear” are “major impediments to performance improvement . . . . [I]ndividuals routinely inhibit learning by making the theories underlying organizational practices un-discussible. This undiscussibility arises from a fear that disclosure of inefficient or irrational practices will impose pain and embarrassment on all involved.”). See also Jay D. Orlander et al., The Morbidity and Mortality Conference: The Delicate Nature of Learning from Error, 77 Academic Medicine 1001, 1003 (2002) (surveying problems with morbidity and mortality conferences, including failure to many cases in which errors occur and failure of surgeons to attend conferences where their cases are discussed).
203 The philosophy underlying total quality management (TQM) is to identify and measure weaknesses, rather than strengths. This approach helps provide an organizational antidote to the universal human tendency to avoid feedback on personal errors and failures.
Focusing on success rates leads to complacency and self-satisfaction; focusing on failure rates does not.\textsuperscript{204} This is why businesses that cannot afford even one-percent defect rates, businesses like commercial aviation, banking, information technology, and manufacturing, train employees to be obsessive about errors.

Yet, the human tendency to focus on successes (of which there are many in health care) blinds providers (and often the public) to the magnitude of the problem.\textsuperscript{205} The 1999 IOM report made the splash it did because it framed the problem of medical error in terms of failure rates. In the U.S., it is true both that one can obtain the best available care for most maladies and that health care errors are the eighth leading cause of death. The IOM triggered a firestorm of controversy and the creation of several government commissions by focusing on failures instead of successes.

Medical schools and other training programs for health care professionals do not teach modern quality assessment and improvement techniques.\textsuperscript{206} Instead, they teach students to make independent judgments and to treasure clinical autonomy. This training may often benefit patients by supplying them with agents who have the confidence to do what is right. But professional independence can have a significant downside for patients as well. A great deal of uncertainty exists about “best” treatments for clinical conditions, and about the “best” way of performing them. The efficacy of most medical treatments has never been proved, and many treatments arguably have upside potential. Many treatments also can be administered in a variety of ways. Given these uncertainties, independent medical agents have significant discretion to recommend procedures that may be sub-par and to implement procedures in sub-optimal ways.

This state of uncertainty gives medical professionals, especially physicians, considerable freedom and power. Physicians have freedom because they can form a wide range of judgments. They have power because patients will rely on their judgments, enabling them to control enormous resource flows. Efficacy studies, clinical practice guidelines, and other quality improvement devices are likely to constrain their

\textsuperscript{204} Wruck & Jensen, supra, at pp. 32-33 (in Acrobat version).

\textsuperscript{205} For example, a recent report in \textit{Physicians Weekly} on medication errors stated that “fortunately, less than 3\% of these [voluntarily reported] events reported caused any harm to the patient.” Three percent may be “fortunately” small by comparison with a larger number, but the commercial aviation industry would be stunned if an equal number of its customers were harmed. If the author of the \textit{Physicians’ Weekly} article had focused on failures instead of successes, he would have written “sadly, almost 3\% of the reported errors harmed patients.”

\textsuperscript{206} On efforts in medical schools to expand training in continuous quality improvement, see Bruce E. Gould et al., \textit{Improving Patient Care Outcomes by Teaching Quality Improvement to Medical Students in Community-based Practices}, 77 Academic Medicine 1011 (2002).
judgment and reduce their importance by excluding options and making the delivery of services more routine.

To put the point another way, although medical schools encourage doctors to exercise good judgment, they have not focused their efforts on Total Quality Management or Evidence-based Medicine. Instead, they have historically emphasized self-reliance and inculcated a belief in hierarchical systems of authority. A person taught to act independently will naturally regard many quality improvement innovations as threats, especially innovations like evidence-based treatment guidelines and computerized diagnostic and risk-assessment tools that have demonstrated their superiority to clinician’s subjective judgments. Physicians often deride such approaches as “cookbook medicine,” and non-physicians have historically deferred to doctors on quality-related issues.

Cookbook approaches have the singular virtue of squeezing out inefficient and potentially dangerous individual variation. No airplane pilot committed to passenger safety (or self-preservation) would complain about having to practice “cookbook flying” by following a checklist before taking off. Pre-flight checklists, routine maintenance guidelines, practice with flight simulators, crew resource management training programs, and other mechanisms that make flying routine save lives. By using these strategies, commercial airline companies have reduced accident rates enormously. The accident rate for the U.S. and Canada exceeded 25 per million departures in 1959. It was less than 1 per million departures in 1980 and has remained low ever since. Now “more than 10 million takeoffs and landings [occur] each year [in the U.S.] with an average of fewer than four crashes a year,” and there have been years in

207 For a brief introduction to recent efforts to introduce the principles of total quality management to the health care sector, see Timothy Stoltzfus Jost, Oversight of the Quality of Medical Care: Regulation, Management, or the Market, 37 Ariz. L. Rev. 825, 835-841 (1995).

208 David C. Classen and Peter M. Kilbridge, The Roles and Responsibility of Physicians to Improve Patient Safety within Health Care Delivery Systems, 77 Academic Medicine 963, 964-965 (2002) (describing medical training in which doctors who make mistakes are castigated and discussing doctors’ reluctance to participate in teams even when teams have been shown to improve quality).

209 See, e.g., Abigail Zuger, New Way of Doctoring: By the Book, New York Times, Dec. 16, 1997 (“studies suggest that only a very small fraction of the decisions doctors make are actually based on firm evidence that a given test or drug is the best possible approach for patients”).

210 As someone once wryly observed, the pilot is always the first person at the scene of an airplane crash.

which no passengers on U.S. commercial airlines perished because of accidents during flight.\(^{212}\)

Not all pilots supported “cookbook flying” initially. Many resisted efforts to control their judgment and discretion. Many also interacted with other members of flight crews in counterproductive ways. “The airline industry was shocked to realize that well-trained and technically proficient crews could crash airworthy craft because of failures of human interaction and communication—areas in which neither training nor formal evaluation was required by the Federal Aviation Administration (FAA) or any other country’s regulatory agency.”\(^{213}\) The need for training in human interaction became clear when studies showed that human errors played a role in 70 percent of airline accidents and “that most of these errors stemmed from failures in communication, teamwork and decision making rather than from technical shortcomings.”\(^{214}\) Commercial air transportation is exceptionally safe today partly because pilots learned to follow rules and to cooperate with subordinates.

Many health care professionals need to learn how to work for safety too.\(^{215}\) “A number of observers have noted large-scale obstacles to promotion of safety culture within healthcare[, including] a pervasive culture of blame that impedes acknowledgment of error, and professional ‘silos’ that offer unique challenges to changing any universal aspect of healthcare, including culture.”\(^{216}\) As Ellison Pierce observed when discussing doctors’ disdain for guidelines, “many, if not most, physicians resented being told what to do.”\(^{217}\) Medical professionals often resist


\(^{213}\) Helmreich, Managing Human Error in Aviation, supra, at 62.

\(^{214}\) Id.

\(^{215}\) See William M. Sage, Putting the Patient in Patient Safety, 287 JAMA 3003, 3003 (2002) (“The quintessential service business can be identified by a sign mounted prominently behind the counter proclaiming that “The Customer Is Always Right.”... [I]t is hard to imagine a similar placard in a hospital or doctor’s office reading “The Patient Is Always Right.””).


\(^{217}\) In an exchange with Pierce, Jack Moyers, an anesthesiologist at the University of Iowa Hospitals, railed against efforts to supplant informed professional judgment with routine use of mechanical monitors and professed to have difficulty “believing that society will ultimately benefit from anesthesia administered by people who revere alarm systems that have created a working environment more like a discotheque than a proper operating
efforts to standardize treatments even when shown that guidelines yield good results.\footnote{218 See also Greg Basky, \textit{Doctors resist adopting clinical guidelines}, 381 BMJ 1370 (May 22, 1999) (discussing Canadian study finding that education programs had little impact on doctors’ rates of compliance with guidelines for using x-rays).}

The experience of The Leapfrog Group (Leapfrog), an initiative created by the Business Round Table that comprises more than 150 large health care payers, indicates the problem. Leapfrog champions three hospital-based patient-safety practices: computerized physician order entry (CPOE), evidence-based hospital referral (EHR), and ICU physician staffing (IPS).\footnote{219 The Leapfrog Group, \textit{Patient Safety Practices}, \url{http://www.leapfroggroup.org/consumer_intro2.htm} (visited Feb. 29, 2004).} When a recent survey found that hospitals had made little progress in implementing these practices, Leapfrog learned that

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\text{[h]}\text{ospitals’ efforts to meet the three Leapfrog standards often are seen by physicians as restricting their autonomy and reducing their productivity and income…. One hospital respondent captured the general sentiment well, noting that one of the “fastest ways to the CEO graveyard is to push physicians too hard and fast on patient safety and quality improvement.”}\footnote{220 Devers & Liu, supra note 1, at 2.}
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Resistance to guidelines has also slowed the progress of the movement for evidence-based medicine (EBM), a philosophy that grounds treatments in the best available studies of effectiveness. It is easier for providers to use familiar practices than to keep up with the rapidly expanding literature on health care. Consequently, providers often employ treatments and procedures that are known to be inefficacious, obsolete, or dangerous.\footnote{221 Abigail Zuger, \textit{New Way of Doctoring: By the Book}, New York Times, Dec. 16, 1997.} It also is easier for providers to do what others in their communities do than to base their decisions on science. Consequently, treatment practices often vary from place to place for no good reason.\footnote{222 See supra notes 43-44 and accompanying text.}

Providers also resist efforts to evaluate the quality of the care they provide.\footnote{223 See, e.g., Troyen A. Brennan, \textit{Physicians’ Professional Responsibility to Improve the Quality of Care}, 77 Academic Medicine 973, 980 (2002) (urging physicians to “eschew fear of measurement”) (original emphasis).} In New York, cardiac surgeons tried to stop the Department of Health from publishing risk-adjusted mortality rates for CABG providers.
When they failed, some attempted to “game” the system by reporting that their patients were sicker (and thus at greater risk of dying) than they actually were. In Kentucky, providers used their state hospital association to lobby against an effort by Anthem Blue Cross & Blue Shield to benchmark the quality of cardiac surgery units. Anthem had previously studied cardiac surgery units in Ohio and found a six-fold variation in risk-adjusted mortality rates. Public health researchers also report that “health plans and hospitals that have low quality of care scores often stop participating in voluntary public reporting efforts.”

Evidently, many hospital administrators prefer hiding problems to revealing them.

Many health care workers also seem to prefer a punitive practice environment to a non-punitive one. A non-scientific survey conducted by the Institute for Safe Medication Practices found high percentages of persons employed in medical facilities who believed that non-punitive environments increase error rates by tolerating mistakes. It should surprise no one that these attitudes prevail, despite holding back quality improvement. To achieve remarkable levels of consistency, one must stop blaming errors on “bad people” and start treating errors as natural and predictable occurrences that shed light on problems of system design. Improving systems takes time, effort, and money. Data must be gathered and studied. Systems must be mapped and sources of errors identified. Improvements must be designed and implemented. These activities require personnel training and continuing education, expert consultants, and new equipment. These activities also require people to confront the awkward, embarrassing, impolitic, and shameful reality that a mistake has occurred on their watch. Given these costs, many providers have found it easier to ignore problems, focus on their successes, and hope for the best.

Modern quality consultants emphasize that errors are opportunities to improve. They also know that environments in which errors are identified and analyzed do not arise spontaneously. Good attitudes must

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224 Issue Brief No. 77 (citing Danny McCormick et al., Relationship Between Low Quality-of-Care Scores and HMO’s Subsequent Public Disclosure of Quality-of-Care Scores, 288 JAMA 1484-1490 (2002)).
226 For an excellent account of the efforts needed to create a culture of safety at one hospital, see Eric B. Larson, Measuring, Monitoring, and Reducing Medical Harm from a Systems Perspective: A Medical Directors’s Personal Reflections, 77 Academic Medicine 993 (Oct. 2002).
be nurtured. Yet, most “physicians lack training in the principles of quality improvement.” Good attitudes must also be recognized and rewarded. Yet, hospitals and physicians often lose money by improving quality, as shown further below. Given the training providers do receive—which inculcates them into a culture of shaming and blaming people for mistakes—and their incentives—which make errors profitable—it is surprising that attitudes conducive to patient safety exist at all.

### B. ECONOMICS

From an economic perspective, the key issue is whether there is a “business case for quality.” A business case for quality exists when a provider can earn a profitable financial return on a quality-enhancing investment. The investment may bring in new patients, reduce costs, or benefit a provider in other ways. Absent a business case, there is no reason to expect a private provider to bear the cost of improving quality, even when an improvement is economically efficient and socially desirable.

Unfortunately, even when quality improvements are cost-justified and otherwise desirable overall, the business case for quality often is weak or nonexistent. This is true largely because of the way health care in the U.S. is financed and delivered.

Third-party payers underwrite most health care expenses, and third party payment arrangements create a variety of problems. First, they cause payers and patients to have inconsistent interests. Payers bear the bulk of the cost of health care; patients enjoy most of the benefits. Payers therefore have an incentive to reduce costs at the expense of quality while patients want ever-higher levels of service even when the marginal benefits of additional care are far less than the marginal costs. Both sets

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room by “chang[ing] the staff belief system from ‘good enough’ to a world class performance mindset, and that “[o]f all the activities, the Belief System Transformation effort has been the most time consuming, yet vital”).

228 Classen and Kilbridge, supra note 228, at 966.
229 Sheila Letherman et al., The Business Case for Quality, Case Studies and An Analysis, 22 Health Affs. 17, 18 (2003). Thus, private benefits must exceed private costs.
230 Id., at 17.
231 Judge Richard Posner framed one side of the dynamic in typically blunt fashion: “[F]rom a short-term financial standpoint--which we do not suggest is the only standpoint that an HMO is likely to have--the HMO’s incentive is to keep you healthy if it can but if you get very sick, and are unlikely to recover to a healthy state involving few medical expenses, to let you die as quickly and cheaply as possible.” Blue Cross & Blue Shield United v. Marshfield Clinic, 65 F.3d 1406 (7th Cir. 1995).
of defective incentives contribute to the quality problems that plague the U.S.

Because payers are more interested in costs than benefits, they have not historically exerted pressure on providers to improve. This dynamic has changed somewhat in recent years, partly because employers lost the battle to control costs directly. When providers and patients crippled employers’ efforts to use MCOs to control costs, employers looked for alternatives. Some latched onto the mantra of the Total Quality Management movement that quality improvements save money. A movement to measure the quality of care and to track improvements emerged. However, the movement has enjoyed only partial success, and the fundamental interest in cost-reduction remains.

Employers’ focus on costs undoubtedly contributes to the fact that providers’ compensation is quality-invariant. As outlined previously, superior providers and inferior providers generally receive similar payments. In a world where payers care more about expense than quality, this approach makes sense. Level compensation also meshes well with providers’ historical preference for fee-for-service compensation over all other arrangements (and especially over arrangements that condition the right to payment on the production of measurable results).

Third party payment arrangements also cause problems because subscriber pools change when patients change employers or health plans. This turnover is a source of problems when returns on investments in quality appear long after services are delivered. For example, disease prevention programs directed at employees in their thirties and forties may greatly reduce health care costs in employees’ retirement years, but if few

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233 See, e.g., Liz Kowalczyk, *Online rankings rankle hospitals: Insurers offering data to consumers*, The Boston Globe, March 8, 2004 (stating that employers are demanding quality rankings of providers because “[they believe] that high-quality care leads to fewer medical errors, repeat procedures, and lower costs”).

234 See Kelly J. Devers, Hoangmai H. Pham, and Gig Liu, *What Is Driving Hospitals’ Patient-Safety Efforts*, 23 Health Affairs 103, 110 (Apr. 2004) (“The first barrier identified by respondents was the absence of strong local market incentives for hospitals to improve patient safety…. [E]mployers and insurance brokers who work with them reported relative little interest in hospital patient safety. Employers were most concerned about premium increases, and although reduction in medical error might reduce costs, few employers connected these two issues.”). Worse, recent changes in market conditions are thought to have jeopardized the efforts of the relatively uncommon employers that do want to improve quality. See Cara S. Lesser et al., *The End of an Era: What Became of the “Managed Care Revolution,”* 38 Health Services Research 337, 349 (2003) (stating that “increased consolidation among providers has strengthened their ability to withstand pressure to demonstrate quality”).
younger employees stay with a company long enough to retire, the savings to the employer may not justify the cost. When costs are internalized but benefits are externalized, investments in quality are unlikely to be made.

Case studies confirm these theoretical predictions. Employee turnover and a temporal mismatch between costs and benefits undermined the financial viability of diabetes case management, smoking cessation programs, and lipid clinics. Programs beneficial to heart disease patients and children with asthma encountered serious financial difficulties because fewer hospitalizations and ER visits, shortened hospital stays, and reduced use of oxygen and medications meant lower revenues. Many programs suffer because quality improvements do not translate into larger market shares. Researchers supported by the Commonwealth Fund, which sponsored a series of case studies of cost-efficient quality improvements, found that “in all cases where the investing organization [was] a provider, the business case [was] unfavorable.”

The Leapfrog Group’s experience also is representative. As mentioned, Leapfrog found that hospitals made little progress implementing its three preferred patient safety practices—computerized physician order entry (CPOE), ICU physician staffing, and evidence-based hospital referral—even though the social benefits of these practices are known to exceed their social costs. Investigations consistently identified deficient private incentives as a cause. “CPOE is perceived to be costly and risky. The hardware and software upgrades needed are expensive and require significant staff training time, and productivity often declines during implementation.” Similarly, “ICU physician staffing may result in a loss of hospital revenue under certain circumstances and payment methods. For example, if health plans do not provide a bonus for improvement in this area and the hospital is being paid on a discount off charges or per-diem basis, use of intensivists may result in a loss of hospital revenue because patients’ length of stay declines. Moreover, intensivists do not necessarily order more billable services, such as

235 The Commonwealth Fund sponsored an excellent series of studies of the business case for quality improvements. The reports can be found at www.cmwf.org. The studies repeatedly find that quality improvements either generate no financial rewards for providers or, perversely, make providers worse off.
237 “The consumer voice that might otherwise in theory have shifted payment toward higher quality was muted, or even silenced.” Id.
238 Id.
239 Issue Brief No. 77.
diagnostic tests.” Finally, “evidence-based hospital referral can lead to declines in hospital revenue … Four of the six high-risk procedures for which Leapfrog set volume thresholds are cardiovascular procedures, which are relatively profitable for hospitals. As a result, hospitals are reluctant to give up referrals and the associated revenue if they do not meet the volume thresholds.”

Those who still doubt that provider self-interest offers a robust explanation for the current state of affairs should consider the comparative availability of computerized user-friendly billing programs and computerized user-friendly clinical treatment programs. Software that avoids billing errors is readily available and most providers have it. By contrast, software for clinical treatment programs has lagged. This outcome is quite predictable from an economic perspective: “[t]he development of medical applications of information technology has largely been commercially funded, and reimbursement has rewarded excellent billing rather than outstanding clinical care. As a result, the focus has been more on products to improve the ‘back-office’ functions related to clinical practice than on those that might improve clinical practice itself.”

In sum, health care providers have worried less about quality than they should have because they were not paid to do so. Altruism, education, lofty ethical standards, demanding norms of patient service, good character, licensure, reputational concerns, desire for referrals, report cards, and a highly punitive culture have undoubtedly motivated providers to make many improvements, but they have failed to bring health care up to industrial standards of quality. Anesthesiologists knew that patient

240 Id.
241 Id.
242 David W. Bates and Atul A. Gawande, Improving Safety with Information Technology, 348 New Engl. J. Med. 2526, 2532 (2003). See also Davis, supra, at 41-42 (reporting that manufacturers of machines for delivering anesthesia had the technology needed to prevent errors but did not incorporate it into their products because “there [was] no great demand from the anesthesia providers”); Stephanie M. Duberman and Henrik H. Bendixen, Concepts of Fail-Safe in Anesthetic Practice, in Pierce & Cooper, eds., at 149, 163 (showing that cost-effective means of preventing anesthesia mishaps were available and arguing that “improvements in outcome [could] be achieve inexpensively and simply).
243 See Leatherman et al., supra at 17-18: “[H]ealth care organizations may be reluctant to implement improvements if better quality is not accompanied by better payment or improved margins, or at least equal compensation. Without a business case for quality, we think it unlikely that the private sector will move quickly and reliably to widely adopt proven quality improvements.”). See also Bill Lewis, New Stents Good for Health, Bad for Finances, Hospitals Say, Tennessean.com, Aug. 1, 2003 (reporting that hospitals lose approximate $400 per use of an improved stent because Medicare reimburses less than the actual cost of the product).
monitors detected misintubations but did not use them because they were expensive.\textsuperscript{244} Hospitals know that computerized physician order entry systems greatly reduce the frequency of medication mistakes but do not use them because they are expensive.\textsuperscript{245} Doctors know that electronic medical records (EMRs) improve the quality of care, but do not use them because most independent practices are too small to afford the technology.\textsuperscript{246} Few emergency rooms have patient-protecting software because of limited resource pooling and economies of scale.\textsuperscript{247} Over and over again, one finds that providers fail to implement proven patient safety measures because they lack incentives to bear the cost.\textsuperscript{248}

The absence of a business case for quality explains the infrequency of error reporting as well. Outside the health care sector, many businesses have created non-punitive internal working environments that encourage workers to bring problems to light.\textsuperscript{249} They have taken this step, despite facing external liability threats, because the benefits of extremely low defect levels exceed the costs. Health care providers can create non-

\textsuperscript{244} Gawande, supra, at 67.
\textsuperscript{245} Doolan & Bates, supra, at 183 (identifying the “[l]ack of financial incentives” as a significant barrier to the implementation of CPOE and other computerized technologies); id. (observing that CPOE may actually disadvantage providers in an FFS environment by reducing hospital lengths-of-stay and numbers of tests performed). See also Institute for Safe Medication Practices, \textit{Patient Safety Survey Results Summary} (2003) (reporting that only 3.3% of 241 responding hospitals had computerized physician order entry systems); Greg Groeller, \textit{New technologies tackle drug errors}, Sun-Sentinel.com, Aug. 31, 2003, http://www.sun-sentinel.com/business/local/orl-subizdrugerrors31083103aug31,0,2697512.story?coll=sfla-business-headlines (indicating that high cost required hospital to stagger implementation of technologies designed to reduce medication errors).
\textsuperscript{248} Id. (reporting that only a minority of 241 reporting hospitals met clinical guidelines for intensive care unit physician staffing or evidence-based hospital referral standards for high-risk surgeries and neonatal conditions). See also Millenson, \textit{The Silence}, supra, at 107 (discussing examples in which “a Manhattan teaching hospital” told doctors to improve their handwriting instead of purchasing a computerized order entry system, senior administrators at an “affluent suburban Chicago hospital” “remain[ed] silent while physicians scoff[ed] openly at buying error-reduction technology that [was] unreimbursed,” and a physician claimed to have “pried an error-reduction budget out of her hospital by fibbing that they would lose Medicaid funding unless they acted”).
\textsuperscript{249} See, e.g., Robert L. Helmreich, \textit{Managing Human Error in Aviation}, Scientific American 62, 62(May 1997) (stating that an airline that instituted a non-punitive reporting policy “received more than 5,000 reports from its pilots in 21 months).
punitive environments too, and the few hospitals that have done so have experienced “striking” increases in the frequency of error reports.\(^{250}\) The number of such providers is small, however, reflecting the fact that providers have little to gain. Attempts to blame under-reporting on fears of litigation sound plausible, but the real problem is that the market forces operating in the health care sector create little pressure for quality to improve.

In theory, patients could exert pressure for quality by voting with their feet. In fact, they have not done so. Outside the health care sector, businesses that produce sub-par goods and services can expect to suffer near-death experiences that chasten their managers. Inside the health care sector, it is the patients who suffer these experiences, not the providers. This may be because patients cannot easily differentiate between high quality care (and high quality providers) and low quality care (and low quality providers). If patients can’t tell the difference, they can neither reward high quality providers by patronizing them, nor punish low quality providers by shunning them. Even providers who recognize that they have a problem and want to invest in quality enhancement can reasonably anticipate that it will be all pain and no gain.

C. THE RARITY OF RESULT-BASED COMPENSATION

The documented shortcomings in the health care sector result from what an economist would describe as a series of principal-agent problems.\(^{251}\) Doctors, nurses, and other health care providers are agents that patients engage to provide information and therapeutic services. Yet, because delivery systems are complex and staffed by fallible human beings, the risk of inadequate performance is high, as is the risk of harm. Patients rationally want health care providers to use their superior knowledge to minimize these risks, but providers are not complying.

\(^{250}\) Lucian L. Leape, *Reporting of Adverse Events*, 347 N. Engl. J. Med. 1633, 1633 (2003) (reporting that “striking increases in internal reporting have been achieved recently in a few hospitals that implemented nonpunitive and responsive reporting systems”); Leape, *Foreward*, supra, p. 146 (stating that by 1999 “leaders in a number of health care institutions across the country had begun to implement non-punitive reporting”). The IOM appears to be committed to the position that health care organizations can create non-punitive environments internally while facing punitive pressures from without. In *To Err Is Human*, it both endorsed non-punitive arrangements and recommended the creation of mandatory error reporting systems that hold providers accountable “by providing disincentives, such as citations, penalties, or sanctions, for continuing to engage in unsafe practices.” Leape, *Reporting of Adverse Events*, supra, at 1634. Evidently, external threats need not poison the atmosphere within.

Ordinarily, principals use two methods to encourage agents to perform well: monitoring and bonding. Bonding involves efforts to tie the agent’s fate to the principal’s, so that self-interest will motivate the agent to serve the principal well. Monitoring involves supervision of the agent by the principal.

Agents operating in the health care sector go to great lengths to bond with patients. Doctors and nurses receive extensive training, certifications, and continuing education. They commit themselves to codes of ethics and subject themselves to perfectionist standards and peer review. Hospitals operate on a non-profit basis, reducing the incentive to “cheat on quality.” Providers place great weight on their reputations.

In other industrial sectors, producers do similar things. They demonstrate commitments to quality by developing brand names, by obtaining certifications from independent regulators, by agreeing to meet production deadlines or quotas, and by setting explicit quality standards and performance targets. Producers operating outside the health care sector also take a further step: they tie their financial success to their customers’ satisfaction by offering warranties, money-back guarantees, inexpensive service contracts, and other emoluments. In other words, they use compensation arrangements that reward them for meeting quality specifications and producing good results. Producers do this for a simple reason: they gain by keeping their customers happy and allaying their customers’ fears. A world in which disappointed or worried customers can take their business elsewhere is a world in which competition is a potent force for quality improvement.

Many service agents use result-based compensation arrangements (RBCAs) too. Lawyers, salespersons, real estate agents, financial advisers, auctioneers, and company managers frequently condition their right to compensation in whole or in part on outcomes, e.g., dollars recovered for clients, sales volume, prices, returns on investments, revenues, or stock values. The linkage between payment and

252 See Hyman & Silver, supra note * at ** (“Lawyers of diverse types work on contingency, as do many accountants who represent taxpayers before the Internal Revenue Service and local taxing authorities. Investment bankers, stockbrokers, real estate agents, auctioneers, department store clerks, insurance agents, advertising agencies, political consultants, and telemarketers work on commission. So do corporate officers, directors, and executives who receive stock options, partners who share in a firm’s profits, employees who receive bonuses, and service personnel who receive tips. Even salaried employees participate in RBCAs when their pension plans hold their employers’ stock.”)
performance brings the economic interests of principals and agents into closer alignment, to their mutual benefit.

Although RBCAs prevail throughout the economy, they are virtually unknown in the health care sector. Of the four most prevalent compensation arrangements—fee-for-service, flat rate, capitation, and salary—none ties the right to payment to service quality or patients’ health. All four arrangements are quality-invariant and outcome-independent. Providers receive the same amount, whether or not they deliver high quality care. Doctors have even used the AMA’s Code of Medical Ethics to prohibit fee arrangements that link compensation to results.

As a general matter, existing compensation arrangements pay health care providers for what they do, not for what they accomplish. This failure to tie compensation to variables that correlate strongly with patients’ needs and desires has a striking consequence: providers have no direct economic incentive to deliver high quality medical care. In many

253 See R. Adams Dudley et al., The Impact of Financial Incentives on Quality of Health Care 76 Milbank Q. 649, 654 (1998) (“Linking salaries and bonuses to performance on quality measures is common in other industries. In the health care industry, however, this practice has been rare until recently and has not been well studied.”). The Department of Veterans Affairs now uses bonuses and punishments to encourage employees to report mistakes. See Pear, supra.

254 For example, consider the consequences of a fee-for-service compensation arrangement. Whether a service helps a patient, harms a patient, or has no effect, a provider’s payment is the same. FFS therefore creates strong interest conflicts. Providers can gain by delivering services patients do not need, including services that expose patients to risks. Providers can maximize profits by minimizing costs, even when this means sacrificing quality. Providers can make money on procedures that are outmoded or inefficient. They can even benefit by harming patients and charging for services needed to undo the damage.

255 See AMA, Code of Medical Ethics [complete cite]; Hyman & Silver [cite articles]; David A. Kindig, Purchasing Population Health (1998) (quoting former Assistant Secretary of Health and Human Services Dr. Philip Lee) (providers “get paid for what we do, not what we accomplish.”). See also David A. Kindig, Purchasing Population Health: Aligning Financial Incentives to Improve Health Outcomes, 33 Health Services Research 223, 223 (1988) (same).

256 See Danzon, supra, at 1348 (observing that FFS compensation “increase[es] the likelihood of errors of commission” because providers can profit by generating a “high volume of reimbursable encounters and procedures”). Capitation creates slightly different incentives, but with similar consequences. “[S]ince the capitated physician faces a positive marginal cost but receives zero marginal revenue per unit of additional service or effort, capitation may create incentives for suboptimal quantity and quality of care if patients have imperfect information about quality or face costs of switching physicians.” Danzon, supra, at 1348. In an encounter-based compensation system, providers are paid based on the amount of time spent with a patient, the number of patients treated, the number and type of procedures performed, the number of weeks employed, or the number of patients in a practice.
instances, providers can actually profit by cutting quality at patients’ expense. As former Speaker of the House Newt Gingrich cuttlingly noted, “healthcare is the only industry in America that can give you a disease and then charge you to cure the disease it gave you.”

Payers share responsibility for this state of affairs. Payers have historically cared more about price than quality, so they have negotiated terms that largely delegate responsibility for quality to providers. Although payers have recently become more interested in performance-based compensation arrangements, there are daunting institutional and political barriers to their adoption.

Even so, RBCAs have the potential to create the business case for quality that is so often missing in the health care sector. By forcing providers to internalize the costs of low quality care and enabling them to capture the benefits of high quality care, RBCAs can spur improvements in the quality of goods and services.

RBCAs also have an important information-forcing aspect. As noted previously, many organizations have hostile internal cultures that discourage health care workers from reporting and dealing with mistakes. RBCAs can encourage these organizations to transform themselves by making their dysfunctional culture more expensive. As soon as employers

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258 Improving delivery systems can require providers to spend millions or even billions of dollars. Existing forms of compensation do not encourage them to incur these expenses, even when the benefits for patients far outweigh the costs to providers.
259 Gingrich, supra, at 18. Gingrich, id. at 19, also cites a report showing that “hospital-acquired infections, which are not considered medical errors, are responsible for over 88,000 deaths every year and cost over $4.5 billion.” According to Millenson, supra, at 111, “[t]he medical literature suggests a 50 percent reduction [of hospital-caused infections] is achievable.”
260 Hyman & Silver, supra note, at .
261 Id., at p. Wruck and Jensen discuss the case of Lincoln Electric, which encouraged high-quality production by issuing lifetime warrantees and by requiring employees [to] repair the defects in their output on their own time. . . . Defects also affect [employees’ annual] bonus[es] directly. “Forgivable” errors result in the employee losing 1% of his or her total annual bonus for each such defect. “Unforgivable” errors result in a loss of 10% of the annual bonus. Although annual total compensation [at Lincoln Electric] is double the industry average, Lincoln’s productivity per worker is five to six times its competitors’. . . . Its monetary pay-for-performance system encourages employees to improve both productivity and quality and has led it to dominate the industry.
bestow honors, recognition, and other rewards on employees who find weaknesses and cure them, good attitudes will take hold and flourish.\textsuperscript{262}

The dearth of RBCAs may also explain why consumer ignorance is a persistent problem in the health care sector. As stated, principals use two methods to obtain reliable performance from agents: bonding and monitoring. Unfortunately, monitoring appears to have little impact on health care quality, mainly because patients have difficulty assessing the quality of care they receive.\textsuperscript{263} The information asymmetry is too great for patients to overcome.

Health care is far from the only industry in which producers know more about the quality of goods and services than consumers do. Indeed, it is difficult to identify any economic sector in which this is not true. Car companies know more about the reliability of automobiles than buyers do. Growers, grocers, and restaurateurs know more about the purity of foods than consumers do. Commercial airlines know more about safety records, on-time arrival frequencies, and lost luggage problems than passengers do. Significant informational asymmetries between sellers and buyers are common.

Markets provide incentives to overcome these asymmetries. Price and non-price competition creates pressures for sellers to make sure buyers know where high-quality goods and services can be found. Consider televisions. If television sets vary in quality, manufacturers of better sets can profit by charging higher prices or selling more units. For this strategy to work, consumers must be able to tell good sets from bad ones, something they cannot naturally do. High-quality sellers have incentives to invest in the reputation of their brand name and educate customers. Consumers quickly learn to avoid sellers that withhold information, or recognize that they are trading off price against quality in dealing with such sellers.

By comparison to other producers, health care providers say little about the quality of the goods and services they provide. They rarely convey information about mortality rates, infection rates, inoculation rates, wait times, or other matters of interest to patients. They do not benchmark

\textsuperscript{262} Wruck \& Jensen, supra, at p.

\textsuperscript{263} See Newhouse, supra, at (explaining that because consumers cannot tell whether a “bad medical outcome is attributable to poor-quality care or to the underlying disease,” they “continue to use providers or delivery systems that give inferior results”); Gaynor, supra, at 13-14 (describing asymmetry of information between patient and physician, and stating that “[q]uality of care (or physician effort in producing care) can be observed far less precisely by the patient than by the physician, providing the physician with an opportunity to skimp on quality”).
themselves against other providers or advertise the results. They resist efforts by others to rank them. They do not even provide complete information about prices in advance. Their silence reflects that the fact that educating patients has little upside for them. RBCAs invert this dynamic, and create incentives for providers to gather and disclose more data in order to attract patients and garner the associated economic rewards.

D. ALTERNATIVES TO RBCAS

The “reforms” offered by proponents of the conventional wisdom also demonstrate the need for RBCAs and other sources of incentives to improve the quality of care. Without exception, critics of liability call for extensive government financing and regulation of health care providers.

264 See Wruck & Jensen, supra, at p. (“Many TQM organizations also benchmark, comparing their performance to data available on the performance of peer or competitor firms.”).

265 Some first-party health insurers have recently begun to make provider rankings available to subscribers. Predictably, providers have questioned the value of the rankings and their accuracy. See Liz Kowalczyk, Online rankings rankle hospitals: Insurers offering data to consumers, The Boston Globe, March 8, 2004.

266 Stuart M. Butler, A New Policy Framework For Health Care Markets, 23 Health Affairs 22, 23 (Apr. 2004) (arguing that health care plans offer more information to subscribers when forced to compete); Alain C. Enthoven, Market Forces and Efficient Health Care Systems, 23 Health Affairs 25, 25 (Apr. 2004) (contending that health care purchasers are poorly informed partly because providers “resist[] … the collection and publication of quality-related information”). Jost, Ariz. L. Rev., supra at 850-855, emphasizes the severity of the information problems afflicting health care consumers. We agree that the project of educating patients is demanding and difficult, and we harbor no illusions of widespread intelligent service selection. But widespread intelligent selection may not be needed. In most markets, a good deal of free-riding occurs as unsophisticated shoppers benefit from the producers’ efforts to satisfy the demands of informed shoppers who seek out the best goods and services at the best prices. Free-riding could also occur in the health care sector if the population of sophisticated patients was larger. Our point is only that it will become larger if providers are incentivized to convey more information.

267 See, e.g., Kathleen Covert Kimmel and Joyce Sensmeier, A Technological Approach to Enhancing Patient Safety, 17 J. Healthc. Inf. Manag. (2003) (“Given the expense of an electronic medical record system, which includes physician order entry, medication administration records, and decision support systems, funding from the hospital supplemented by the federal government is needed. . . . . [T]he government needs to create a national health information infrastructure as a medical communication highway to protect its citizens.”); Lapetina, supra, at (recommending that governments require ambulatory and office-based surgical centers to require accreditations and to mandate the use of licensed anesthesiologists in certain procedures); id. (“[T]he U.S. Department of Health and Human Services (HHS) should mandate that all states create standard of care
Consider Professor Liang’s self-described “very modest proposal.” He would “create a patient safety center within the National Institutes of Health for coordination and study of medical error,” “mandate systems-based patient safety and error reduction efforts . . . as a condition of accreditation and licensure of institutional providers,” “mandate systems-based, patient safety and error reduction, [and] continuing medication education for individual providers,” “mandate [error] reporting with the stick of licensure suspension or revocation for nonreporting,” “eliminate [] termination without cause clauses in physician contracts” with employing health care organizations, separate financial officers from clinicians, “mandate third party, independent review when physicians and health care plans conflict in recommendations for patients,” and, apparently, forcibly educate patients. That Liang describes his call for extensive governmental involvement as “a very modest proposal” shows only that no one expects providers to achieve appropriate safety levels on their own.

The almost reflexive reliance of commentators on governmental initiatives is easy to understand. Regulations more often drive major efforts to improve patient safety than market forces. Interviews conducted as part of the Community Tracking Study confirm this. When accounting for improvements, hospital administrators and other interviewees cited the desire to meet JCAHO accreditation requirements more often than other cause. They even gave JCAHO credit for improvements that were not tied to express JCAHO requirements, such as investments in electronic medical records and other forms of information technology. These

for office-based surgery and procedures involving anesthesia within a designated number of years. The standards should address areas including patient monitoring during procedures, technology implementation, and equipment purchase and maintenance.”); Doolan & Bates, supra, at (recommending state and federal grants for technology implementation); Liang, supra note, at 43-44 (stating that “managed care organizations . . . have no incentive to engage in or fund the significant administrative and clinical costs associated with error reduction research and implementation”); Bates and Gawande.

268 Liang, supra note , 24 S. Ill. U. L. J. at 561-566. Liang also identifies need for “internal and industry-wide reporting and analysis systems that continuously monitor errors and error reduction effectiveness.” Id. at 563. It is not clear from the text whether he would create these by mandate, too.

269 They should have much less faith in the ability of governments to police health care quality. Experience with state-run incident reporting systems and medical boards provides no basis for optimism on this score. See, e.g., Leape, Reporting of Adverse Events, supra, at 1636 (discussing underfunding and general inactivity of state reporting systems)

270 See Kelly J. Devers, Hoangmai H. Pham, and Gig Liu, What Is Driving Hospitals’ Patient-Safety Efforts, 23 Health Affairs 103, 105 (Apr. 2004).
investments were said to be indirect means of helping hospitals meet requirements that were expressly listed.\textsuperscript{271}

The consensus that government must lead the way is an unmistakable sign that providers’ incentives are inadequate. No one expects taxpayers to underwrite quality improvements in computers sold by Dell or cars sold by General Motors.\textsuperscript{272} The public expects both companies (and the private sector more generally) to invest in quality because doing so is profitable. By offering RBCAs, Dell, General Motors, and a host of other companies align their interests with those of their consumers. It is time for health care providers to do the same—and once they do so, we should fully expect immediate and extensive improvement in the quality of care they provide.

\section*{VIII. Harmonizing the Liability and Patient-Safety Approaches}

Patient safety advocates argue that faulty systems cause medical errors, not bad people. But tort liability blames individuals (and sometimes entities) for mistakes and holds them accountable for patients’ losses. This is one reason many patient safety advocates believe that tort liability is detrimental. Because it shames and blames individuals, it is thought to apply pressure at the wrong points.

Yet, tort liability and patient safety are not completely incompatible. One can find many anecdotal reports in which malpractice lawsuits caused providers to address systemic problems they neglected when left to their own devices.\textsuperscript{273} The history recounted in Part IV.B. shows that anesthesiologists revamped their systems and improved their performance because of tort liability, not in spite of it. And the Harvard Medical Practice Study found that professional negligence and patient harm were less likely to occur when injured patients were more likely to sue. The correct assessment appears to be that tort liability sometimes motivates providers to improve their performance and their delivery systems but does so inconsistently and less effectively than is optimal.

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\textsuperscript{271} Id., at 107.
\textsuperscript{272} To be sure, technology transfer of government-funded research is another matter entirely. In general, the U.S. relies on a mix of public and private funding to conduct basic scientific research. Applied research is more heavily funded by private parties, who reasonably anticipate garnering an economic return from their investments.
In this Part, we outline several ways of strengthening the tendency of tort liability to motivate providers to improve their delivery systems. We begin by setting out a simple theory of how tort liability is supposed to create incentives for quality improvement. The theory forces one to rethink the criticism that the tort system fails because it targets individuals instead of systems. The criticism may be right, but not for the reason its authors contend. We then examine the causes of the tort system’s failure to generate quality improvements. Finally, we consider ways of strengthening the tort-based signal to improve.

A. CREATING INCENTIVES FOR SAFETY: A SIMPLE THEORY OF COST INTERNALIZATION

Organizations like hospitals and MCOs have the power to improve delivery systems, but tort law often holds individuals like doctors and nurses responsible for mistakes. When individual providers “called the shots,” the decision to impose liability on them was arguably defensible. Now that organizations are in charge, it seems to makes no sense to hold individuals responsible for systems they do not control.\footnote{Runciman & Tito, supra at 975 (arguing against the application of sanctions to individuals and contending that “more attention should be given to demanding organizational compliance with appropriate standards”); Liang, supra note * at ** (“[L]iability rules on the organizational level may also impede error reduction activities. . . . [because they] shield organizations from liability. . . . even though the organization has designed the incentive structure. . . . This is a direct result of a physician’s independent contractor status; since the physician is not considered to be under the control of the organization and has significant discretion over the performance of his or her responsibilities, the organization, which “merely” pays for services, is generally not liable for the actions of the independent contract physician. . . . ”)}

The problem of individual accountability is compounded by MCOs’ efforts to influence the practice of medicine. Physicians complain that MCOs prevent them from delivering medical care of the highest quality and punish them for advocating on behalf of patients. It seems perverse to hold physicians liable for mishaps resulting from constraints MCOs impose on them. Freeing MCOs from malpractice liability also weakens their incentive to improve quality.\footnote{Liang, supra note, at 43-44 (“Further, because managed care organizations do not generally shoulder liability associated with patient injury, they have no incentive to engage in or fund the significant administrative and clinical costs associated with error reduction research and implementation.”)}

Although these points are true in a superficial sense, liability critics who stress the choice of wrong targets fail to grapple with the Coasean point that contracts can cure inefficient assignments of liability. If MCOs, health maintenance organizations (HMOs), hospitals, and other entities...
can efficiently improve their systems, and if the law incorrectly imposes responsibility for mishaps on physicians, nothing impedes a contractual solution that minimizes expected error costs by shifting liability from physicians to organizations.

Consider an example. Suppose that a doctor employed by an MCO can efficiently spend $1,000 reducing errors directly, that the doctor faces a remaining expected liability exposure of $25,000 per year after this investment is made, and that a liability insurance carrier would charge an actuarially fair premium of $25,000 to cover the remaining exposure. After preventing errors directly and buying insurance, the doctor’s total cost of dealing with errors is $26,000.

Now suppose the MCO could cut the doctor’s residual liability exposure from $25,000 to $5,000 by improving its health care delivery systems at a cost of $10,000. Plainly, the doctor could save money by paying the MCO $10,000 to make the improvements and by paying a fair premium of $5,000 to insure the residual risk that would remain. Paying the MCO to improve would reduce the doctor’s total cost of dealing with errors to $16,000 ($1,000 + $10,000 + $5,000).

The doctor’s professional liability carrier could accomplish the same result. Continuing the preceding example, suppose the doctor is content to pay the $25,000 premium. Instead of accepting the payment and shouldering the risk, the doctor’s liability carrier would find it advantageous to pay the MCO to improve its systems. A $10,000 payment to the MCO would save the carrier an expected $20,000 in liability costs, allowing it to pocket a $10,000 profit.

Because a liability carrier can pool physicians who practice in the same hospital or facility, it may also find it advantageous to pay for improvements that individual physicians would not purchase on their own. Suppose a $50,000 improvement in a hospital’s operating room would

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276 For simplicity, the example assumes that defense costs and claim adjustment expenses are zero and that liability insurance premiums are tailored to the risks individual physicians present.
277 Liability insurers have in fact worked to reduce the frequency of malpractice claims. See, e.g., Office of Technology Assessment, Defensive Medicine and Medical Malpractice 33 (1994) (reporting that some malpractice insurers have developed “mandatory clinical protocols that physicians must follow to maintain coverage”); Liang, supra note **, 24. S. Ill. U. L. J. at 546-547 (reporting that malpractice carriers require doctors and hospitals to engage in risk management activities as a condition for obtaining coverage); Jack Moyers, Does Monitoring Have An Effect on Patient Safety?, 4 J. Clin. Mon. 110 (1988) (“We now find certain monitors being used [in connection with anesthesia] because insurance companies, either directly or indirectly, has issued a sort of ultimatum.”).
reduce the liability exposure of 100 doctors by $1000 each.\textsuperscript{278} It would be irrational for any doctor to pay $50,000 for a $1000 gain, but it would be advantageous for a carrier covering all 100 doctors to pay $50,000 to save $100,000. The liability insurer could thus achieve economies of scale that doctors not formally associated with each other might have difficulty obtaining on their own.

Completing the triangle, the MCO could step between the doctor and the liability insurer. By agreeing to indemnify the doctor for malpractice claims, the MCO could absorb the doctor’s $25,000 expected liability loss in return for a payment of $25,000, spend $10,000 improving its systems, pay $5,000 for an insurance policy covering the doctor’s residual exposure, and pocket $10,000 in cash.\textsuperscript{279} An MCO could also perform an aggregating function by implementing practice standards and other safety enhancements and taxing their costs to all doctors under contract.\textsuperscript{280} Examples of such enterprise liability by contract exist in some areas of the health care marketplace, although there are clearly transactional and institutional barriers to its universal adoption.\textsuperscript{281}

To summarize, if health care organizations could efficiently reduce error rates by improving delivery systems, the assignment of tort liability to individual providers should not impede progress. It should instead create a bargaining environment in which physicians pay organizations directly or indirectly to make cost-justified improvements.\textsuperscript{282} The decision to saddle individuals with financial responsibility for mishaps should not be crucial, even if organizations have greater ability to improve health care delivery systems than they do.

Critics of tort liability nonetheless believe that the decision to target individuals is an important mistake. If they are right, it can only be because contractual exchanges are not reassigning liability efficiently. The difficulty of contracting cannot account for this. Doctors, hospitals, MCOs, and health care payers already use contracts to regulate many

\textsuperscript{278} Many safety devices that could be adopted at hospitals and other locations where doctors practice are likely to fit this description. For example, all clinicians who prescribe medications in a hospital would benefit from a computerized drug order entry system. Nurses and the hospital’s pharmacist would benefit too.

\textsuperscript{279} See Danzon, supra note **, at 1378 (“If enterprise liability is potentially efficient, it could already be adopted by voluntary contract between hospitals and their medical staff.”).

\textsuperscript{280} See Liang, supra note **, 17 Yale L. & Pol’y Rev. at 57 (stating that a physician who contracts with an MCO “subjects himself or herself … to practice and other MCO requirements, including the use of specific clinical practice guidelines, limitations on care decisions by management, standards of utilization review,” and other terms).

\textsuperscript{281} William M. Sage and James M. Jorling, A World That Won’t Stand Still: Enterprise Liability by Private Contract, 43 DePaul L. Rev. 1007, 1032 (1994).

\textsuperscript{282} Cf Guido Calabresi, The Cost of Accidents (1964) (noting importance of placing liability on cheapest cost avoider, regardless of whether they are parties to the contract).
aspects of health care delivery, and they have considerable freedom to reallocate malpractice risks. Patricia Danzon, a leading health economist, points out that “contract enterprise liability is already the norm in at least one staff model HMO, in most teaching hospitals and in other contexts where physicians are salaried hospital employees.”

Recent premium spikes appear to have encouraged risk-shifting as well, with “physicians in many states [] seeking coverage from the hospitals with which they are affiliated.”

To explain why the decision to target individuals makes a difference (assuming it does), one must posit defective incentives. That is, one must show that inefficient assignments of liability “stick” because the incentives to shift responsibilities to organizations are missing even though organizations can bear them more efficiently. The next section shows that defective private incentives may often arise.

B DEFECTIVE INCENTIVES IMPEDE LIABILITY TRADES

It should be plain by now that many providers invest fewer resources in patient safety than they should. The most important explanation for this is the failure of the health care market to reward quality improvements. Another is the tort system’s failure to pick up the slack. The tort system emits a weak and inconsistent signal for quality improvement.

The basic reason for this problem is that injured patients rarely sue. Focusing on hospitalized patients in New York, the HMPS found a 7.5 to

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283 See Danzon, supra note **, at 1378. See also Liang, supra note **, 17 Yale L. & Pol’y Rev. at 57 (stating that a physician who contracts with an MCO “subjects himself or herself … to practice and other MCO requirements, including the use of specific clinical practice guidelines, limitations on care decisions by management, standards of utilization review,” and other terms).

284 William H. Sage, Medical Liability and Patient Safety, supra, at XX.

285 The discussion in this section focuses on the tort system’s impact on errors that injure patients. Other defects in health care delivery abound but are not generally subjects of tort litigation. Consider waste. Many medical tests and procedures, such as arthroscopic knee surgery for patients with osteoarthritis and spinal fusion surgery for patients with back pain, are of doubtful effectiveness. Jensen & Tinker, supra, at 15-16 (“The truth is that many currently ‘standard’ diagnostic and therapeutic practices, involving huge numbers of patients, high risks, and tremendous costs, rest upon very uncertain foundations with respect to efficacy.”). Ineffective procedures do not trigger malpractice lawsuits unless they are delivered improperly and patients are harmed. Consequently, malpractice lawsuits are not means of discouraging waste. On the effectiveness of knee surgery and spinal fusion surgery, see supra notes 47-48 and accompanying text.
1 ratio between negligence-induced adverse events and the total number of medical malpractice claims. Approximately 2% of patients whose injuries stem from negligence file claims, although claiming is more common when injuries are severe. “Even when the injury sample was narrowed to a subset of more monetarily valuable tort claims—those involving serious injury to patients less than seventy years old—a negligence-to-claims ratio of 5 to 2 persisted.” Other studies also find low claim rates.

The universe of filed lawsuits also contains a substantial number of claims, perhaps even a majority, in which no negligence occurred. In many instances, there was not even an adverse event. Over-claiming—the assertion of invalid malpractice claims—is, however, dwarfed by under-claiming—the failure to assert valid claims. “[F]or every doctor or hospital against whom an invalid claim is filed, there are seven valid claims that go un-filed.”

Because under-claiming is so widespread, the tort system predictably fails to send a strong quality-improvement signal. To create optimal incentives, the system would have to transfer 100 percent of the costs of negligence from patients to providers. In fact, patients and their first-party health insurers bear the vast majority of the costs of medical

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286 An adverse event is an injury caused by medical management (rather than the underlying disease process) that resulted in either a prolonged hospital stay or disability at discharge. The judgment that an adverse event had occurred was based on a two-stage process using implicit standards to conduct a professional review of the medical records. The studies of New York (1984 hospitalizations) resulted in an adverse event rate of 3.7%. Subsequent studies of Utah and Colorado (1992 hospitalizations) resulted in an adverse event rate of 2.9% in those states.

287 Studdert et al., supra, at p. 7 (reporting that “[i]n total, approximately 3,600 malpractice claims relating to injury year 1984 were made in New York. A comparison to the 27,000 negligent adverse events arising in that year produces a negligence-to-claims ratio of 7.5 to 1.”)

288 Studdert et al., supra, at p. 7.

289 Paul C. Weiler et al., A Measure of Malpractice, supra, at 70 (noting that “nearly 80 percent (10,026 out of 12,859) of the patients who suffered a negligent injury but did not sue were either fully recovered from the injury within six months or were more than 70 years old when the injury occurred.”); Danzon, supra, at 1354 (explaining that malpractice lawsuits rarely occur when patients suffer small injuries).

290 See also Danzon, supra, at 1354-57 (reviewing studies showing that patients injured by medical negligence rarely sue).

291 Saks, supra note **, at 703.

292 Mello & Brennan, supra, at 1623. See also F. Sloan et al. (page); Weiler et al., A Measure of Malpractice, supra, at 112 (“To the extent that injured victims systematically underutilize their tort rights, there is a corresponding reduction in actors’ incentives to adopt socially optimal precautions against such injuries.”).
injuries. The fraction of the cost borne by providers is far too small to motivate them to invest as heavily as they should in quality improvements.

Even if the tort process had no other defects, under-claiming would eliminate private incentives to make many socially efficient improvements. Suppose an MCO could cut the expected costs of negligently inflicted iatrogenic injuries to patients from $25,000 to $5,000 by investing $7,500 in better health care delivery systems. From an efficiency perspective, the investment, which saves $12,500 in net expected injury-related costs, ought to be made. If tort law holds physicians responsible for negligence, not MCOs, then the MCO will have no incentive to spend the $7,500 barring the Coasean transactions outlined previously. Without those transactions, the MCO would bear the cost of the improvement, but others—patients and doctors—will reap the gains. Nor, in a world of widespread under-claiming, would doctors find it economically advantageous to pay the MCO to make the improvement. Suppose that patients bearing only 13 percent of the injuries sue, the percentage indicated by a 7.5 to 1 ratio of adverse events to claims. It would cost doctors $3,250 to compensate these plaintiffs in full, far less than the $7,500 the improvement would require.

Under-claiming makes it cheaper for providers to tolerate problems than to fix them. Unless settlements and verdicts are “up-weighted” to reflect this fact – and they are not – providers will necessarily be under-deterred by the tort system. Providers will also lack incentives to reallocate malpractice risks efficiently in many situations.

See Randall R. Bovbjerg and Frank A. Sloan, No-Fault for Medical Injury: Theory and Evidence, 67 U. Cin. L. Rev. 53, 60-61 (1998) (“the vast majority of medical injuries are reimbursed by the first-party coverages, just as are the underlying conditions that caused patients to seek medical care initially”) (citing Deborah R. Hensler et al., Compensation for Accidental Injuries in the United States (1991)).

Poor quality health care of all forms was said to account for roughly $420 billion in direct medical spending in 2003 and for another $105 to $210 billion in indirect costs, like reduced business productivity due to employee absenteeism. The total economic burden imposed by poor quality health care is thus in the neighborhood of $500 to $700 billion. Midwest Business Group on Health, Reducing the Costs of Poor-Quality Health Care Through Responsible Purchasing Leadership i (2nd printing, Apr. 2003). By comparison, providers spent about $21 billion on malpractice insurance in 2001. Insurance Information Institute, Medical Malpractice (Sept. 2003), http://www.iii.org/media/hottopics/insurance/medicalmal/.

Under-claiming may be less troubling when punitive damages are available for certain claims that are brought directly against MCOs.

Hyman, supra note * at **. Professor Saks suggests that this “up-weighting” function is being accomplished indirectly, by terrorizing physicians more generally about the
Some commentators who assert that malpractice liability impedes progress by driving errors underground also believe that under-claiming weakens providers’ incentives to invest in patient safety. The combination of views is odd. Logically, those who espouse the conventional wisdom should argue that the rarity of malpractice suits improves health care quality by reducing the frequency and severity of punishments. If all malpractice victims were to file lawsuits and obtain compensation, the conventional wisdom would predict a marked decline in health care quality, as proliferating lawsuits scared providers out of their wits and fostered unprecedented efforts to hide mistakes. One cannot have it both ways. Either tort deters (in which case more is better) or it doesn’t (in which case less is better). Regardless, there is, once again, little empirical evidence to support the conventional wisdom.

Other problems further dilute the tort system’s deterrent signal. After patients file malpractice cases, the system does a reasonably good job of sorting the wheat from the chaff -- a much better job than many proponents of tort reform suggest. Many studies report high frequencies of settlement and payment in cases where experts agree that defendants violated the standard of care and low frequencies when experts agree otherwise. Still, a good job is not a perfect one. Civil justice processes produce wrong decisions with some frequency, awarding damages to undeserving claimants and withholding damages when negligence and injury occurred. Many of these mistakes are inevitable. Malpractice

consequences of falling into the clutches of the tort system. See Saks, supra note *, at 1286-87. Professor Saks does not consider the demoralization costs associated with this strategy, or the anti-tort coalition strategies it encourages.

See, e.g., Liang, supra note ** at 567 (arguing that because “fewer than one out of sixteen patients who are ‘negligently’ injured ever collect a penny from the tort system …[.] we’re not getting the appropriate effect in terms of maximization of safety and minimization of error and . . . injury.”).

Catherine T. Harris, et al., Placing “Standard of Care” in Context: The Impact of Witness Potential and Attorney Reputation in Medical Malpractice Litigation 4 (2002) (“Over the past fifteen years, there have been a number of empirical studies of the medical malpractice claims process. Virtually every one … has concluded that compensation paid to the plaintiff is closely related to a determination of ‘negligence,’ typically defined in terms of a failure by the defendant physician to meet the relevant standard of care.”); F.A. Sloan et al, Suing for Malpractice, supra, Chapter 8.; Ralph Peeples et al., The Process of Managing Medical Malpractice Cases: the Role of Standard of Care, 37 Wake Forest L. Rev. 877, 885-886 (2002) (reporting that “[i]n 100% … of the cases in which the outside reviewers evaluated the defendant-physician as probably liable, the insurer concluded that the standard of care had been breached,” and that “money was paid to the plaintiff in 93.1% of the cases” in which the insurer determined that the standard of care was breached).

See, e.g., Cheney et al. (reporting payments in **% of anesthesia-related cases where reviewing physicians found no negligence). Physicians who are sued when they are not negligent incur significant financial and reputational costs.
cases are so complex and subjective that even experts disagree over correct outcomes an appreciable part of the time. Standards of care are often uncertain as well because evidence of the efficaciousness of treatments is lacking. Payments are therefore often made or withheld in many tort cases where educated people could reasonably criticize either result. As Sloan et al. observe, “[t]o the extent that there is highly incomplete knowledge about the effect of particular interventions by health care providers on outcomes, it is unrealistic to expect courts to be omniscient in this regard.”

Civil justice processes also frequently over-compensate claimants with modest injuries and under-compensate claimants whose injuries are severe. The degree of under-compensation varies directly with the magnitude of injury, meaning that patients who suffer the worst harms also endure the most serious compensation shortfalls. Under-compensation remains a problem even after payments from collateral sources are considered.

These errors add a good deal of “noise” to the signal the tort system emits. The noisier the signal, the less effective it is in communicating a deterrent signal to health care providers. If providers perceive they are likely to be held liable for non-negligent care, they are unlikely to take seriously the “outputs” of the tort system as indicative of anything.

A further difficulty is that the tort system has very high loading costs. For every dollar that reaches an injured patient as a result of a tort claim, almost two dollars are spent getting it there. The magnitude of the expense is not surprising. Malpractice lawsuits involve complex issues, expert witnesses, large damages, and, often, multiple defendants. By comparison to other tort suits, they also last a long time. All these factors

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300 See, e.g., Peeples et al., supra, at 884 (reporting that in 34.3% of the cases in which a malpractice carrier solicited external reviews, the reviewers disagreed);
301 F. Sloan et al, Suing for Medical Malpractice, supra, at 219.
302 F. Sloan et al, Suing for Medical Malpractice, supra, at 220 (“claimants tended to be undercompensated, and the fraction of loss recovered tended to be less for the most severe injuries and for deaths, in particular for infants”).
303 Id.
304 A team of Harvard researchers described the system as “sending as confusing a signal as would our traffic laws if the police regularly gave out more tickets to drivers who go through green lights than to those who go through red lights.” Measure of Malpractice, supra note **, at 75. To be sure, there is a substantial “base rate” problem with this metaphor. Because the vast majority of drivers don’t go through red lights, even a small error rate in writing tickets will result in precisely this outcome. See Saks, supra note **, at 714.
tend to increase litigation costs.\textsuperscript{305} Malpractice lawsuits also affect health care providers’ reputations and endanger their licenses. Consequently, malpractice cases tend to be hard fought, even when liability is fairly clear.\textsuperscript{306}

In theory, high litigation costs could have mixed effects. They could weaken the tort system’s signal for quality by discouraging plaintiffs’ lawyers from bringing cases into the system. They could also strengthen the signal by making errors that do reach the system more expensive to defend. Although good empirical evidence is lacking, the first effect seems to outweigh the second. Litigation costs have exerted little pressure to improve because, historically, insurance carriers, hospitals, and physicians have passed these costs onto patients and the public by charging higher premiums and fees.\textsuperscript{307}

Finally, one must consider the impact malpractice insurance has on providers’ incentives. Malpractice insurance for health care professionals is rarely risk-rated.\textsuperscript{308} Premiums vary by specialty, geography, and a few other variables, but they do not reflect individual providers’ loss experiences. The failure to risk-rate insurance may well be rational, but it further limits the ability of the tort system to send a deterrent signal to physicians about the consequences of their actions – let alone the implications of their failing to adequately invest in patient safety measures.\textsuperscript{309}

The problems discussed to this point—under-claiming, erroneous denials of compensation, under-compensation of patients with severe injuries, high litigation costs, and distortions attributable to malpractice

\textsuperscript{306} See Peeples et al., \textit{Who Are Those Guys?} (finding that insurers routinely made plaintiffs demonstrate the merit of their cases even when insurers’ thought liability was clear).
\textsuperscript{307} See Patricia M. Danzon, Mark V. Pauly & R. S. Kington, \textit{The Effects of Malpractice Litigation on Physicians’ Fees and Incomes}, 80 Am. Econ. Rev. 122, 125 (1990). William Sage argues that providers have found it harder to pass on premium increases in recent years. William M. Sage, \textit{Medical Liability and Patient Safety}, 22 Health Affairs 26, 29 (Aug. 2003). If Sage is right, one should see a variety of reactions as providers seek to lower their costs, including marginal improvements in health care safety resulting from increased implementation of efficient patient protections.
\textsuperscript{308} Previous attempts to impose experience rating have been unsuccessful, as physicians have simply switched to insurers offering non-experience rated coverage. See Frank A. Sloan, \textit{Experience Rating: Does it make sense for medical malpractice insurance?}, 80 Am. Econ. Rev. 128 (1990). On experience rating for medical malpractice coverage more generally, see Gary M. Fournier & Melanie M. McInnes, \textit{The Case For Experience Rating in Medical Malpractice Insurance: An Empirical Investigation}, 68 J. Risk & Insur. (2001)
\textsuperscript{309} But see Hyman, \textit{supra} note * at ** (noting rise of risk-rated malpractice insurance in Texas.)
insurance—would limit the effectiveness of tort law even if civil justice processes made full compensation available to all negligently injured patients. In fact, civil justice processes are not so generous. Waves of tort reform have made it harder for patients with valid claims to obtain compensation and have limited the amounts they can recover.

Tort reform has taken a variety of forms. The most prevalent type is a cap on non-economic damages (pain and suffering), which is usually not indexed for inflation. Other proposals include screening panels, mandatory ADR, caps on contingent fees, collateral source offsets, requirements relating to expert reports and expert witnesses, and the like. In general, tort reforms make malpractice cases more expensive, riskier, and less rewarding for claimants and their lawyers, e.g. by requiring expert reports as a condition for filing claims, by capping damages or fees, or by making claimants endure additional burdens like screening panels or ADR processes before going to trial. They also make malpractice claims less expensive for defendants by reducing their frequency, by weakening plaintiffs’ bargaining positions, by decreasing the willingness of plaintiffs’ attorneys to bear costs, or by giving defendants credit for payments claimants receive from other sources.

For deterrence purposes, the impacts of tort reform on both sides matter. On the claimant’s side, it is well known that economic incentives influence the behavior of plaintiff’s lawyers. Because these lawyers work for contingent fees and have to bear large expenses, they prefer cases involving serious injuries, large damages, and clear liability. Patients have trouble finding representation when their injuries are small or their damages are small, which, in the case of the elderly and the poor, may be true even when injuries are severe. Patients also find it hard to hire lawyers when it is unclear whether their treatment violated the standard of care. Empirical studies have found that plaintiffs’ attorneys who handle malpractice cases are highly selective.

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310 Gerald B. Hickson et al., Factors That Prompted Families to file Medical Malpractice Claims Following Perinatal Injuries, 267 JAMA 1359, 1359 (1992) (“Unless claims are large enough, plaintiffs’ lawyers, paid by contingency fees, will not think them worth the effort.”).

311 See, e.g., Herbert M. Kritzer, Holding Back the Floodtide: The Role of Contingent Fee Lawyers, Wis. Law., Mar. 1997, at 10, 63; Herbert M. Kritzer, Contingency Fee Lawyers As Gatekeepers in the Civil Justice System, 81 Judicature 22, 24 (1997). See also Henry S. Faber & Michelle J. White, Medical Malpractice: An Empirical Examination of the Litigation Process, 22 RAND J. Econ. 199, 200 (1991) (arguing “[t]he contingency fee system gives plaintiffs’ lawyers a strong incentive to screen prospective plaintiffs and to accept only cases having sufficiently high expected value”).
By making cases riskier and less rewarding, tort reforms discourage contingent fee lawyers from taking cases. For this reason, tort reforms reduce the incentive for providers to invest in measures that protect patients from harm and exercise due care in their treatments. Tort reforms that make malpractice cheaper for defendants by reducing the frequency of lawsuits or the amounts defendants must pay to resolve them have the same economic effect.

C. MAKING THE TORT SYSTEM WORK BETTER

Medical providers want to abolish the tort system. Trial lawyers want to keep it. Neither side is likely to win a complete victory. Policy debate should therefore focus on accommodations that further the legitimate interests of both and that, above all, encourage improvements that protect patients from preventable harms. We discuss certain possibilities here.

All of these proposals are necessarily quite preliminary, and they are likely to require modification in light of market developments and difficulties with implementation. Yet all have the singular virtue of creating incentives for providers to “do the right thing,” by encouraging error reporting and the use of those reports to actually address the problem of low quality care.

1. Make the Market Work Better

As explained above, strong economic forces provide the overriding impetus for quality improvement in most industrial sectors. The simple fact that producers profit by meeting customers’ needs creates enormous pressure to treat customers well.

When markets work well, civil justice systems can safely play a minor role in quality improvement. Their main purpose can be to ensure a degree of civility and respect in economic relationships by taking the roughest edges off disagreements that buyers and sellers cannot work out on their own.312

In the health care sector, market forces subject providers to little economic pressure to improve. Consequently, quality problems abound and courts are asked to exert greater pressure for quality than they normally do. Even in theory, it is difficult for courts to play so large a role. Markets cause quality to improve automatically by encouraging producers to generate new knowledge and changing their processes as

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312 A distinguishing feature of highly developed capitalist economies is an ethic of honesty and fair dealing between buyers and sellers. There is reason to think courts contribute to the development and persistence of this ethic. Comparative studies show a positive correlation between economic growth and easy access by businesses to honest courts. See Frank Cross, Law and Economic Growth, 80 Tex. L. Rev. (2002).
knowledge grows. Courts decide malpractice cases on the basis of old knowledge (that may or may not be reliable) that has been incorporated into a standard of care (that may or may not be efficient). Courts are therefore inherently limited in what they can do.

The first prescription for improving health care quality must therefore be to increase the strength of market forces. The highest priority should be given to arrangements that enhance providers’ incentives by tying their compensation to measurable improvements in outcomes and that enable patients to distinguish between superior and inferior providers effectively. To restore the ex post tort system to its proper role, we should place more emphasis on ex ante contracts between payers, patients, and providers.

2. **Allow Premiums for Malpractice Insurance to Rise**

The history of anesthesia safety suggests that providers react in economically rational ways to changes in premiums for malpractice insurance. Anesthesiologists studied their delivery systems and improved them because it saved them money overall. At the time, anesthesiologists’ insurance premiums were considerably higher than those paid by many other physicians. By reducing morbidity and mortality rates, anesthesiologists protected millions of patients from avoidable harms, cut the number of malpractice complaints, and saved money on insurance.

Anesthesiology is the only medical practice area to achieve reliability rates that rival those of high quality producers in other industries. The persons most responsible for its improvement openly admit that lowering malpractice premiums was an important objective. The lesson for policy makers is that rising insurance rates can encourage health care providers to make desirable improvements. The lesson is also that litigation rates and premiums will fall on their own when providers improve the quality of care.

Policy makers should therefore resist the urge to rescue providers from premium increases by capping damages or otherwise impeding the tort system’s ability to shift the costs of malpractice from patients to providers. By doing nothing, policy makers may achieve significant results in a short time. Anesthesia safety improved dramatically and quickly after the ASA promulgated guidelines for patient monitoring. Insurers reduced premiums for anesthesiologists soon thereafter, as their

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313 See Hyman & Silver, *supra* note * at **.
314 Cf. David A. Hyman, ** (“Don’t just do something; sit there”)
performance improved. If policy makers had intervened, e.g., by capping malpractice premiums for anesthesiologists or limiting their liability to patients, the incentive to address the underlying quality problems would have diminished.

The improvements anesthesiologists implemented in the 1980s have had staying power. Unlike rates for other medical professionals, anesthesiologists’ insurance premiums have remained relatively flat, reflecting the fact that anesthesia delivery continues to be safe. A plausible hypothesis is that the pro-quality attitudes and institutions anesthesiologists created took hold, fostering a culture of safety with a life of its own. If policy makers allow insurance rates to rise for other providers, they will feel pressure to develop similar attitudes and institutions, and the culture of medicine may forever be changed.

3. **Use Caps on Non-Economic Damages to Reward Error Reporting and Error Reduction**

To encourage voluntary error reporting, an obvious strategy is to reward providers for making reports and punish them for hiding mistakes. We propose that a cap on non-economic damages be used for this purpose. Although many states have imposed such caps already, they have not used them as we propose because their object was to limit insurance costs, not to improve health care quality. States with caps thus missed an opportunity to encourage providers to make improvements that would protect patients and cause insurance costs to decline naturally.

When a provider reports an error within a specified time of its occurrence, we proposed that the provider receive the protection of a limit on non-economic damages. The limit could take many forms, e.g., a flat cap, a sliding scale tied to the amount of economic damages awarded, or a percentage reduction against an eventual trial award. When a provider fails to report an error in a timely manner, we propose that non-economic damages be enhanced. Again, many arrangements are possible. A floor could be set, a trial verdict could have a multiplier applied, etc.

Using a combination of carrots and sticks should increase error reporting greatly. Today, health care workers who know about errors rarely have incentives to report them because error reduction benefits neither their employers nor them. The possibility of reducing damage awards to injured patients would pressure providers to reward workers for conveying useful information. Because providers with functioning error-reporting systems would also face less liability, insurance companies could also offer them lower premiums. Insurers might even make the existence of error-reporting practices a condition for extending coverage.

The rewards and punishments we propose could have collateral benefits as well. First, by reporting errors and gaining the benefit of the cap, providers would reduce the variance associated with malpractice
claims. This should make malpractice cases easier to settle and to insure. The floor on non-economic damages should reduce the variance as well. Second, because the fact of having made a report would have to be public (at least to the extent of being revealed to the trial court), information about providers’ error reporting practices would be produced. Employers, consumer groups, and others could use this information when rating providers or deciding whether to include them in networks.

The possibility of rewarding providers for reporting errors raises two important questions: what should they report and to whom? There are many options. Choices among them should be made on the basis of their tendency to promote quality improvement.

An option that seems especially attractive would be to require providers to participate in quality surveys like those run by The Leapfrog Group. Providers of lesser quality tend to withdraw from these surveys in disproportionate numbers. Yet, if malpractice claims track the frequency of errors, these providers also stand to gain the most from damages caps. Consequently, the incentive for them to participate in quality surveys would increase dramatically.

Tying the damages cap to participation in third party surveys would also create the option of rewarding providers for improving their quality survey “scores” over time. This could be accomplished by creating a second cap (and lower) cap on non-economic damages that becomes available when measurable improvements in quality targets are achieved.

Rewarding providers for improving their quality survey “scores” would also address a second problem. Error reporting is a necessary condition for improvement but not a sufficient one. Providers have known all along about some of the problems outlined in this article, but many have not put their knowledge to use because they find it cheaper and easier to allow errors to occur than to prevent them. To harmonize medical liability and patient safety, it is as critical to create incentives to use knowledge appropriately as to reward providers for accumulating information.

4. **Reward Health Care Workers for Reporting Problems**

Under-claiming, which weakens the deterrent signal sent by the tort system, is inherently difficult to fix. Although one often hears that Americans are excessively litigious, most of us are exceedingly reluctant
to sue.\footnote{International comparisons reveal that on a per capita basis Americans are less likely to sue than Germans, Swedes, Israelis, and Austrians, and about as likely to sue as Britons and Danes. See Herbert M. Kritzer, 80 Tex. L. Rev. xxx (2002) (reprinting figure comparing per capita litigation rates in diverse countries).} Most of us also cannot easily tell whether we received proper care. Finally, most injuries stemming from medical errors also are too small to justify the high cost of malpractice litigation. The tendency of first-party health care payers to share these costs also waters down patients’ incentives. The prospects for increasing the claim rate are dim.

Given this difficulty, one must consider the possibility of allowing people other than patients to sue. Health care workers are the obvious candidates. They are more likely than patients to know about errors and faulty delivery systems. They may also know when health care providers are ignoring shortcomings instead of correcting them. Finally, they may be professionally motivated or obligated to protect patients.

Health care workers lack standing to file malpractice suits. They can complain to regulators, however, but they are not rewarded for doing so.\footnote{For a recent example of an investigation triggered by a report filed by a whistle-blowing employee, see Associated Press, Patients May have Gotten Wrong HIV Results, Mar. 11, 2004 (reporting that, because of a complaint filed by a former employee, state health officials discovered that a hospital’s laboratory personnel overrode controls in testing equipment and mailed possibly erroneous test results to hundreds of patients).} Consequently, it is more profitable for them to participate in the “conspiracy of silence” that allows errors to continue than to report them.

A qui tam approach, loosely based on that found in the False Claims Act (FCA),\footnote{The FCA allows private parties to sue on behalf of the United States government, and share in the eventual recovery.} could create substantial incentives for employees to come forward. The approach we envision would reward workers for reporting problems to administrative agencies or third party quality monitors by paying them liquidated bonuses. The reports would be confidential, to ameliorate employees’ fear of reprisal. Providers that, upon investigation, are found to have sub-par systems in place would be penalized. These penalties would fund the reporting employees’ rewards. Because the penalties would be fines rather than civil damages, they would not be covered by insurance.

Small bonuses would probably generate significant information about seriously deficient health care providers without giving employees incentives to abuse the process, e.g., by lodging complaints after being discharged. If proponents of the conventional wisdom are right, many health care workers are looking for safe ways to reveal errors and pressure their employers to improve. These employees may fear reprisal on the job as much as or more than they fear litigation. The approach we envision
would give employees with valuable information an opportunity to reveal it without putting their jobs on the line.

Again, the questions of what to report and to whom must be addressed. It probably makes more sense to rely on independent quality monitors than on public agencies like state medical boards. The latter have proven to be incapable of policing quality effectively. The entities that are leading the campaign for quality are the ones most likely to resist being captured by providers and to give complaints the attention they deserve.\footnote{See Kelly J. Devers, Hoangmai H. Pham, and Gig Liu, What Is Driving Hospitals’ Patient-Safety Efforts, 23 Health Affairs 103, 105 (Apr. 2004) (“hospitals’ major patient-safety initiatives are primarily intended to meet JCAHO requirements”).}

A complementary approach that would also use a qui tam strategy would allow employees to bring malpractice cases on behalf of patients. The statute of limitations on such cases should only start running after the individual plaintiff has had a reasonable amount of time to bring a case on his own behalf. One could also allow employees to file qui tam cases immediately and for liquidated damage amounts when injuries are too small to justify contingent fee lawsuits, as frequently is true. All of these strategies have the potential to address the under-claiming that makes malpractice cheaper for providers than it should be.

5. **Recognize Evidence-Based Medicine as an Absolute Defense**

Physicians complain bitterly that their conduct is subject to second-guessing by know-nothing juries and judges. To the extent physicians render care that meets consensus standards of quality, there is no reason to subject them to liability or to devote legal resources to such cases. Although there are obvious difficulties associated with the development of consensus standards, physicians who adhere to those standards should be immune from suit.\footnote{On the risks and benefits of developing and using consensus standards, see Michelle Mello, Of Swords and Shields: The Use of Clinical Practice Guidelines in Medical Malpractice Litigation, 149 U. Pa. L. Rev. 645 (2000).} As noted previously, physicians express fear and loathing about the prospect of being sued. If physicians fear malpractice as much as they say they do, the prospect of immunity should be an immediate incentive for the implementation of these standards.
6. **Require Repeat Defendants to Undergo Quality Audits and Publicize the Results**

A relatively small fraction of all physicians account for a disproportionate share of malpractice claims, settlements, and judgments. Targeting reform efforts against those who are most responsible for the problem is an efficient use of limited resources. Rather than wait for malpractice claims to be brought, state licensing boards and the hospitals at which repeat defendants have privileges should be required to conduct prospective quality audits and publicize the results of those audits. Even if the audits do not result in any disciplinary action or limitation of privileges, the act of publicizing the quality audits should alone create considerable incentives for repeat defendant physicians to correct their deficiencies or find another line of work.

**VIII. Conclusion**

Patient safety advocates have made strong and unqualified claims about the deleterious impact of medical liability on the performance of the health care system. Although their claims are plausible, the best available evidence does not support them. Liability appears to make a modest positive contribution to patient safety overall, accounts for significant improvements in anesthesia safety, encourages providers to solve specific problems at specific health care institutions, and causes physicians to be more forthcoming in conversations with patients.\(^\text{320}\)

Many providers have failed to adopt patient safety measures of proven effectiveness, and they have similarly failed to use information already in their possession to protect patients from harm.\(^\text{321}\) Given that

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\(^\text{320}\) Millenson, *The Silence*, supra, at 108. See also Danzon, supra, at 1362 ("[C]asual evidence indicates that hospital and other peer review procedures have been strengthened in direct response to liability."); Millenson, *The Patient’s View of Medical Errors*, in Marilynn M. Rosenthal and Kathleen M. Sutcliffe, eds., Medical Error: What Do We Know? What Do We Do? 101, 107 (2002) ("hospitals and medical staffs have arguably paid more attention to impaired practitioners, where the legal risk is obvious, than to fixing systems errors that lack an easy villain.")

\(^\text{321}\) One cannot blame hospitals’ failure to reduce post-surgical infections on litigation’s tendency to drive error reports underground. Hospitals know about the problem and the potential cures, but sometimes do nothing until they were sued. Steven Lubet summarizes the failure of the Bridgeport Hospital in Connecticut to address obvious deficiencies in sanitary procedures, even as infection rates soared, until litigation brought the Hospital’s problems to light. Post-litigation, the infection rate fell to “near zero.” Lubet, *Like a Surgeon*, 88 Cornell L. Rev. 1178, 1194 (2003)

Nor can litigation explain why providers often fail to use error reports that are generated internally to improve delivery systems. See Institute for Safe Medication Practices, *ISMP Survey Shows Weaknesses Persist in Hospital Systems for Error Detection, Reporting and Analysis*, ISMP Medication Safety Alert! (Nov. 15, 2000) (“Although access to valuable error-related data may be easy to obtain, it may not
providers subject to liability for negligence behave in this fashion, it is absurd to think they would voluntarily spend hundreds of millions or billions of dollars implementing patient safety initiatives if the threat of liability were removed. Optimism about providers’ likely responses to hortatory appeals to “do the right thing” should be distinguished from pie-in-the-sky Pollyannaism.

The conventional wisdom simply assumes this problem away. It is naïve to think that progress on the patient safety front would occur automatically if the threat of liability were removed. Providers are (all else being equal) more likely to attend to problems that are sources of liability than to problems for which the costs are externalized. Indeed, as Professor Bill Sage has noted, “innovation that improves safety often happens in the shadow of liability.”

These observations do not mean that the arguments raised by patient safety advocates should be ignored. Medical liability is an extraordinarily inefficient mechanism for encouraging the delivery of high quality care and for transferring resources from negligent providers to injured patients. A strategy that uses the economic self-interest of providers to address the problems raised by patient safety advocates has more chance of succeeding than one that either relies on the legal system exclusively or eliminates tort regulation and puts nothing in its place.

Useful approaches would harness all available forces—including market-based incentives, legal liability, and health care workers’ professionalism—to address these problems. Firms in other industrial sectors have created non-punitive environments in which workers can actually [be] used to improve medication safety. For example, more than a quarter of respondents (29%) said they had not collected and used information about pharmacy interventions to correct prescribing errors.

322 Barry R. Furrow, The Problem of Medical Misadventures: A Review of E. Haavi Morreim’s Holding Health Care Accountable, 29 J. L. Med. & Ethics 381, 381 (2001) (“[M]uch of the current discussion among providers is self-protective, as it assumes that the threat of malpractice litigation is the problem, blocking discussion and disclosure of errors and thus preventing system improvements to decrease future errors. Don’t spook physicians, say the critics, for they are easily spooked. Protecting them from liability will open the floodgates of candid error disclosures, allowing for the necessary system improvements.”).

323 See Furrow, supra, at 381 (“If, however, the tort system were to vanish overnight, the forces of provider ego, practice inertia, and leadership shortcomings . . . would still conspire to conceal errors.”).


325 Sage, supra, at *.
report problems without fear of recrimination or reprisal, despite being subject to external liability threats (or even because of these threats).\textsuperscript{326}
For these firms, the benefit of providing higher quality goods and services exceeds the associated cost, and non-punitive internal reporting systems provide the information needed to drive that outcome. Health care organizations can create such environments if they are truly committed to providing high quality care.\textsuperscript{327}

Patient safety advocates are also right in arguing that the health care sector needs a cultural transformation.

Suppose that an airline’s managers and pilots repeatedly resisted installing collision-avoidance systems despite solid evidence of their worth. Suppose, too, that they complained that the radar was not reimbursed adequately, required inconvenient retraining, provided no competitive advantage in attracting passengers at a time when airline profits were low, and (sotto voce) was an insult to pilot judgment. No one would blithely blame “airline culture” for an ensuing disaster, and no one would absolve individual pilots and managers of responsibility for that disaster simply because they never intended for passengers to be harmed.\textsuperscript{328}

Health care providers make arguments like these all the time, and they expect them to be taken seriously. Better evidence of attitudes antithetical to patient safety would be hard to find.

Bad attitudes persist because providers have bad incentives. A world in which health care providers profit by making mistakes is a world in which they will find reasons for allowing high error rates to persist. \textit{No rational system of compensation rewards an agent for making a principal

\textsuperscript{326} See, e.g., Robert L. Helmreich, \textit{Managing Human Error in Aviation}, Scientific American 62, 62 (May 1997) (stating that an airline that instituted a non-punitive reporting policy “received more than 5,000 reports from its pilots in 21 months).

\textsuperscript{327} Lucian L. Leape, \textit{Reporting of Adverse Events}, 347 N. Engl. J. Med. 1633, 1633 (2003) (reporting that “striking increases in internal reporting have been achieved recently in a few hospitals that implemented nonpunitive and responsive reporting systems”); Leape, Foreward, supra, p. 146 (stating that by 1999 “leaders in a number of health care institutions across the country had begun to implement non-punitive reporting”). The IOM appears to be committed to the position that health care organizations can create non-punitive environments internally while facing punitive pressures from without. In \textit{To Err Is Human}, it both endorsed non-punitive arrangements and recommended the creation of mandatory error reporting systems that hold providers accountable “by providing disincentives, such as citations, penalties, or sanctions, for continuing to engage in unsafe practices.” Leape, \textit{Reporting of Adverse Events}, supra, at 1634. Evidently, external threats need not poison the atmosphere within.

worse off.\textsuperscript{329} Unless and until these incentive problems are corrected, patients will continue to receive low quality care, and medical errors will continue to beset our system of health care delivery.

\textsuperscript{329} Hyman & Silver, supra note , at .