

Surmounting Myths and Mindsets in Medical Malpractice

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Medical malpractice is in the news, again. The early 2000s have seen the third upheaval in medical liability insurance over the last three decades. States have as always been the first responders, but liability reform has also become a high-profile federal issue. Physicians, their liability insurers, and their allies promote state and federal tort reform to curb lawsuits. Their key goal is a “cap” of \$250,000 on awards for pain and suffering, as pioneered in California in 1975. In opposition, plaintiffs’ attorneys and their allies promote an unlimited “right to sue.”

In many contentious debates, policymakers confidently assume that the truth lies somewhere between the clashing extremes. Not in medical malpractice. Its key partisans are defendant doctors and plaintiff attorneys, and even groups claiming to represent the broader public sound very much like the partisans themselves. Moreover, the sometimes apocalyptic rhetoric masks the underlying reality that proponents and opponents of tort reform both accept today’s system—reformers just want somewhat less of it.

The routinized debate sounds much the same as a generation ago, and neither side has learned enough from recent advances in patient safety. Both sides spin myths from selected anecdotes or factoids and tout non-peer reviewed “studies” that lack reliable methodology. Minds are very set, indeed.

This brief first highlights the top five myths on each side. Most contain elements of truth but also substantial exaggeration and misdirection. It next presents the top five real problems, from the public perspective. It is the public’s medical injuries that the lawsuit and liability

insurance “system” prevents or compensates . . . or does not. And it is the public that ultimately bears the costs. The brief ends with suggestions for new, constructive ways to provide compensation and protect patients. Citations of literature appear at the end of this brief.

Contentions of Tort Reform Opponents

There is no malpractice crisis, only the usual insurance cycle.

There is no dispute that medical providers’ liability premiums have risen sharply since 1999, much faster than medical fees. Many insurers have also ceased offering coverage, sometimes quitting the market permanently, and new entrants have been slow to replace them. States where a third or more of physicians suddenly found themselves uninsured can reasonably be said to have faced crisis. “Crisis” is a political label, not an objective conclusion, but policymakers in Nevada and other states have clearly perceived the need for emergency action to keep coverage available. Most states

have had lesser problems. Overall, difficulties seem to have been worst for high-risk specialists like obstetricians and neurosurgeons, and high-risk locations, like southern Florida and southeastern Pennsylvania.

It is true that the premium increases of 2000–05 will not continue indefinitely. Prices will at some point have risen enough to cover expected future payouts, and the recent “hard” market will “soften,” becoming more favorable to buyers. Already, malpractice prices appeared to be moderating as of mid-2005. The ups and downs of the cycle are normal, but its turn does not return physicians to normalcy. Rather, they face much

Thirty years of disputation have popularized many conflicting myths about medical malpractice. But increasing stridency about liability reform has marginalized more important issues of patient safety. More constructive alternative reforms would better serve the interests of all health care patients and payers.

higher premiums and less ability to spread risk, as many buyers have turned to unconventional coverage and some big traditional insurers have departed for good.

Investment returns drive insurance prices, not legal trends.

Tort reform opponents are correct that the insurance cycle has contributed to insurance problems. That much is undisputed. Costs of reinsurance and other insurance-market factors also have contributed. Opponents are wrong, however, that all of the increases are due to the cycle or to insurer investment earnings, independent of underlying trends in liability payouts. If they were, one would not see such state-to-state variability.

In fact, the main cost of liability insurance is liability. Over time, premium rises must match the rising cost of liability or else insurers fail. The correspondence is not neat and regular because future payouts can only be estimated when premiums are set, and prices are affected by market competition as well as actuarially projected costs.

A drop in investment earnings does raise premiums—disproportionately so because malpractice insurers hold so much capital to backstop pending claims and protect against unexpected surges in payouts. The Government Accountability Office (GAO) reported that the investment return for the country's 15 largest carriers dropped just 1.6 percentage points during 2000–02, yet by itself increased premiums about 7.2 percent. Most states saw larger increases. Across seven sample states, the GAO found that 1999–2002 increases ranged from 2 to 75 percent. The base rate for Miami general surgeons in 2002 was \$174,300 a year, more than 17 times the Minnesota rate—and even double the rest of Florida. Such large differences do not reflect variations in investment earnings but rather the socio-legal factors that influence claims rates and payouts.

Legal trends are more important than investment returns, but it is not reliably known how fast liability payouts are growing and how much growth is due to injuries' medical and wage costs as opposed to allowances for pain and suffering. Insurers' report sharply higher payouts since the mid-1990s. Several recent tabulations of paid claims trends raise doubts, although they fail to control for the propensity of larger cases to resolve more slowly.

Tort reform does not work.

This assertion is as wrong as it is commonly made. Reforms do work as reformers intended: "Caps" on awards and some other reforms are well documented to reduce malpractice claims and payouts, often cutting plaintiff attorneys' fees as well. If reforms did not accomplish those goals, physicians would not be such avid proponents, nor plaintiff lawyers such opponents. Caps succeed, however, by unfairly reducing the recoveries of the most severely injured claimants, just as lawyers assert.

Holding down claims costs in turn reduces premiums. A good estimate is that California-style tort reforms, including caps, would reduce premiums by 25–30 percent nationally, more in states without such reforms already.

This estimate comes from the Congressional Budget Office (CBO) and reflects the weight of research. Reports that belittle caps typically lack broad data, are not peer-reviewed, and have weak methodology. A key failing is not controlling for the propensity of states with high rather than low premiums to enact caps in the first place.

Whether caps continue to achieve savings depends upon whether courts continue to apply them as binding limits and whether juries start working around non-economic limits, for instance by finding higher economic losses. Courts might reinterpret some types of damage or some types of claims not to be subject to a cap; at the extreme, courts may simply invalidate a cap even after some years of upholding it, as the Wisconsin Supreme Court did in July 2005.

Both sides focus too much on the single example of California. Tort reform proponents argue that tough 1975 tort reforms cut California premiums. Opponents credit tough insurance regulation after a 1988 voter initiative. The proponents are more convincing. For example, according to a national actuarial association, California accounted for fully 30 percent of all 1975 malpractice premiums nationwide. Its share dropped to only about 15 percent even before the cap survived its final legal challenge in 1985. California's relative premiums continued to decline thereafter, both before and after the insurance reform.

Precisely because more than one factor can change during a time period in one state, national studies that control statistically for multiple factors are more credible than stories about any one state or small group of states. A number of national analyses have found that reforms reduce premiums. One also found a modest impact from stronger insurance regulation.

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Top five myths of tort reform opponents

1. There is no malpractice crisis, only another cyclical downturn in insurer profits—*déjà vu* all over again.
2. Trends in investment income, not legal results, drive insurance prices.
3. Tort reform doesn't work; only tough insurance regulation can curb insurers.
4. The liability system is the only effective protection for patients against far-too-unsafe medical practice.
5. A few incompetent doctors cause most malpractice.

Tort liability best protects consumers against an unsafe medical system.

Defenders of traditional litigation suggest that “The threat of liability is what works as a deterrent to improve patient safety.” The simple logic of legal theory is indeed impressive: If wrongdoers are made to pay the costs of their wrongdoing, they will do less wrong.

However, the real world suggests significant shortcomings in this logic for most medical care: Most negligent medical injuries never result in any claim, and many claims are not valid. There are seldom clear standards to follow, and experts routinely disagree on whether particular conduct was negligent. The legal system’s low credibility among physicians undercuts the influence of legal results on the very audience meant to be influenced. Tort signals are also very slow, as the typical payment occurs more than four years after an injury, by which time the behaviors involved may well have changed. Further, few legal costs are imposed on physicians who are sued, because almost all are pooled through insurance. A physician’s malpractice premium is very unlikely to be based on claims history, although institutional rates are generally experience rated. Indeed, larger hospitals often self-insure, and therefore bear the full cost of their own claims.

A thought experiment about airline pilots highlights the limits of individual deterrence. Pilots are always the first at the scene of a crash, and there is no better deterrent for error than instantaneous capital punishment. Yet the main cause of crashes is controlled flight into terrain. As one expert puts it, perfectly good pilots, in perfectly good airplanes, still fly into perfectly good mountains. Many of the best ideas for improving medical practice come from the ways that safety analysis and interventions have greatly reduced the risks of crashes.

Safety experts, in sharp contrast to lawyers, generally believe that most mistakes cannot be deterred by individual reprisals. Further, individuals’ mistakes seldom involve knowing (mis)calculations of risks that could readily be improved by fiscal signals from lawsuits. It can be argued that legal deterrent signals can constructively affect medical behavior in indirect ways, as through insurers’ risk-management initiatives rather than individual practitioners’ responses to legal incentives. The prime example here is the 1980s adoption of national anesthesiology standards that are generally although not universally believed to have markedly reduced injuries and deaths. Such examples are partly notable because they are unusual.

The top five myths of tort reform proponents

1. A “runaway” legal system generates far too many claims.
2. Most legal claims are frivolous.
3. Juries are incompetent to hear medical evidence and are biased against doctors.
4. Doctors are fleeing practice all over the country.
5. Caps and other limits will curb wasteful defensiveness and keep health coverage affordable.

There appears to be no systematic evidence that an unreformed medical liability regime creates higher quality or safer medical care. Medical practices, some measures of quality, and negligent injury rates all vary substantially across intrastate locations, although all share the same legal system. Further, safety problems persist despite many years of increasing liability risk and fears.

A small number of incompetent doctors cause most malpractice.

It is true that only a small share of physicians have multiple claims in any given time period, and that they always account for more than their share of malpractice claims and payouts. It is not true that this small share of people accounts for most malpractice or that removing them from practice would dramatically cut premiums. Massachusetts, for example, recently reported on 10 years of physician claims experience for all doctors in the state. Only 4 percent of physicians with any paid claims had three or more paid claims, but they accounted for about 13 percent of all paid claims and payouts.

Safety researchers report that most errors are slips or lapses made by competent people. Incompetence is rare, they say, and replacing the individuals who are involved in a particular patient injury will seldom decrease the incidence of future injury. All observers, however, agree that some doctors do practice beyond their competence, and that such problem physicians need to be dealt with. This is the traditional role of the state medical board, the only entity with the ability to bar a doctor from practice. The key issue is how to improve boards’ disciplinary performance, rely more on other entities to restrict their practice, or both. Strong critiques of boards’ performance are common, but constructive suggestions for improvement are rare.

Contentions of Tort Reform Proponents

The liability system has too many claims.

A frequent recent assertion is that medical liability is “out of control.” (A Google search for *medical malpractice “out of control”* finds 42,200 “hits.”)

Over the long term, claims have indeed become much more frequent. A 1950s survey found that physicians faced a one in seven risk of malpractice suit—per *lifetime*—whereas by the mid-1980s crisis this had become the *annual* rate in many areas. Both in the

mid-1970s and mid-1980s, a run-up in claims rates preceded announcements of insurance crisis. Yet claims growth receded a few years after each crisis, possibly because of tort-reform limits and publicity-

driven changes in social behaviors. Since the late 1980s, claims have evidently risen little nationally, although some states have seen more rapid growth. The problem this time, say insurance experts, is that payouts rose more sharply than predicted in the mid-1990s, especially at the high end of awards. The big cases have gotten much bigger. The extent of increase is not well documented other than from insurance sources, and deserves more attention, as already noted.

Many studies have estimated, however, that the actual number of negligent injuries is an order of magnitude larger than the number of lawsuits. This is the biggest problem of all, considered at more length below.

Most legal claims are frivolous.

“Frivolous,” like “crisis,” is a value-laden judgment. It is true that well over half of claims are closed without payment, as are 80 percent of the small share of cases resolved by jury verdict. (These statistics vary by era, definition of “claim,” and data source.) But unpaid does not mean invalid, much less frivolous. The legal system is meant to channel discontent into a nonviolent process, then winnow cases so as to focus the most-resource-intensive part of the process—jury trials—on the most contentious cases. Many litigants report that no one disclosed to them what happened, and they sued in large part to get information. They complain about “stonewalling” by medical providers after an accident. Lawyers also see no alternative to litigating to investigate the validity and value of their clients’ cases. And lawyers typically drop many cases after filing because their expected values are discovered not to justify their litigation costs.

The best information about the “validity” of claims (and claims resolutions) comes from expert review of closed malpractice cases. Those files contain extracts from medical records as well as depositions, investigator reports, consultant reviews, and other information. Such studies are unusual. Probably the largest study was of a national database of more than 1,000 anesthesia claims, done by experts in the 1980s. (They were trying to identify types of injuries that medical safety guidelines might prevent, regardless of what legal results occurred for those injuries. Individual deterrence alone was clearly not preventing the injuries, and premiums were very high.) They judged that medical validity significantly affected legal outcome: patients had a high probability of financial recovery for injury caused by substandard care but payments also occurred in 40 percent of cases where care was appropriate. These and any other particular estimates should not be taken as definitive. All estimates are imprecise because even neutral expert reviewers frequently reach different conclusions about the same case.

Juries are incompetent or biased against doctors.

Some argue that juries are readily swayed by emotional identification with injured claimants, especially severely injured claimants, or that jurors readily find against “deep pocket” defendants like doctors. Juries are sometimes called incompetent even to judge experts’ medical presentations, prone to be swayed by style of presentation, and unable to judge relative expertise in a trial’s “battle of experts.”

Typically, such assertions are made as self-evident, and evidence seems very sparse. By definition, of course, lay jurors lack medical knowledge. That is why the law requires expert witnesses in malpractice cases, although not automobile lawsuits. Yet courts have traditionally thought juries competent to assess all types of complex cases and all types of experts, not just medical ones. Several studies have compared jury determinations with those of judges and found them similar, in malpractice and other types of cases.

Jury bias against doctors is particularly hard to square with the statistic that malpractice juries favor the defendant by an 80 to 20 percent margin in cases they decide. It is true that clear-liability cases are settled before reaching juries, sometimes even during trial; but the same winnowing occurs in auto cases, where jury outcomes are typically near 50-50. A detailed closed-claims study in New Jersey judged the validity of numerous claims against the evaluations of the physician-insurer’s own peer-review panel. The study found that juries did make “mistakes”—but more often in favor of doctors than against them.

Doctors are fleeing practice.

Numerous anecdotal accounts or surveys of physicians say that liability pressures are making them drop certain services, leave certain states, or retire early. Rapid liability premium increases have certainly strained physician budgets. Today’s health plans no longer let practitioners raise fees as they could to cover liability premium increases in the 1970s and 1980s. (Some economic analysis found that 1970s fee increases more than offset premium rises.) Departures are less well documented, however, and intense lobbying efforts have produced exaggerations. Independent case studies have found some impacts on physician practice that alter patients’ earlier modes of access to care, but no evidence of widespread practitioner withdrawals. The GAO examined five crisis states and found only “localized” reductions in hospital-based services, often in rural areas that have multiple physician-retention pressures. No problems were identified in four non-crisis states studied.

Another recent case study of 12 metropolitan areas found that “continuity of care and patient choices have been limited to some extent” in most markets and to a

“significant extent in Miami, northern New Jersey, and Cleveland”—all locations without caps. Some early warning signs exist that young doctors’ choices of locations and specialties may be affected by liability fears. Two published studies find that tort-reform caps slightly increase the physician-population ratio in a state.

Tort reform will keep health care affordable.

Reforms, especially caps on awards, are sometimes urged as a way to save tens of billions of dollars and keep health care and insurance affordable. Savings could occur in two areas—liability premiums and “defensive” medicine. If liability premiums (or self-insurance) were lower, then health plans could hold down fees and premiums commensurately. By how much? As noted above, the nonpartisan CBO has concluded that caps and other proposed federal reforms would cut liability premiums nationally by 25–30 percent. Given that liability premiums are only about 2 percent of health spending, health costs would drop by only 0.4–0.5 percent, with similar impact on health care premiums.

Any large savings from reform must come from reducing “defensive” extra tests and procedures that are done more for legal defense than for patient benefit. Practitioners have long reported such wastefulness, as early as the first Congressional hearing on malpractice, in 1967.

How much does defensiveness cost? Estimates vary widely, and irresponsibly high guesses have appeared in print. What really matters is how much would be removed by tort reform. The highest peer-reviewed estimate is that caps and similar reforms could save about 4 percent in medical costs—a notable achievement, even though much less than most years’ increase in health care premiums. However, only one pair of analysts have found effects of such magnitude, many others have found small effects at most, and CBO analysts could not replicate the pair’s high estimates.

The issue is complex. Negative defensiveness can also occur—that is, failure to take desirable actions because of legal fears, including refusal to serve certain patients or to disclose problems to patients. Other factors than legal fears promote extra services, and some behavior derided as defensive may help patients, including maintenance of better medical records and greater willingness to refer patients to more specialized practitioners.

How best to reduce low-value medical care and increase high-value services goes well beyond reform of liability law. Both defensiveness and the accuracy of liability determinations might ultimately be improved by greater reliance on evidence-based medicine. To-

day, much research finds large variation by location in service utilization, quality, and costs—with no known relationship to legal regime or experience.

Real Problems

The heated tort reform battle obscures real problems of medical safety and legal underperformance and thus the need for more fundamental reform. Making progress on injury prevention and compensation calls for turning down the heat and turning up the light. Recognizing problems is the first step toward improvement.

Too many preventable injuries occur.

This conclusion is supported not only by a number of large-scale studies of hospital records in different states and in different eras, but also by smaller, sometimes observational, studies of practitioner behavior. Growing recognition of these problems has since the mid-1990s promoted “patient safety” and new ways of preventing error and avoiding injury.

Patient safety concerns are influencing policymakers and opinion leaders in government and in medical institutions. Dispute remains about the precise extent of problems, but not about their existence. Whatever deterrent value tort law has, it clearly leaves in place a substantial amount of avoidable injury.

What is not clear is how best to make improvements. Patient safety experts decry reliance on blaming individuals involved in accidents as the main way of avoiding accidents. They promote reengineering of medical workplaces and processes to make errors less common, to reduce the ways that any remaining errors can affect patients, and to promote early remediation or rehabilitation where injuries still occur. Other observers have long promoted moving away from individual liability and toward institutional responsibility as a way to encourage injury reduction. This has not yet occurred, and the medical services market today is moving away from tighter integration of institutions and individual practitioners.

In any event, the extent of medical injury is a continuing problem, not a periodic crisis. Progress in safety promotion calls for action on many fronts, not just liability reform.

Compensation is poor.

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Few patients make claims, and fewer still collect. Many more patients experience negligent medical injury than bring lawsuits, by a factor of as much as 10 to one. Those who make claims are disproportionately likely to have suffered serious injury, however, so the extent of injury left out of the system is less. Most claimants do not receive any payment, as noted above.

The top five real problems

1. Too many patients suffer preventable injuries.
2. Compensation of injuries is very poor, as few patients make claims and fewer still collect.
3. Claims resolution is inefficient: too slow and costly.
4. Liability fears hamper physician-patient communication and disclosure of injuries.
5. Determinations of negligent medical injury are inherently subjective.

Even those who are paid may receive too little (or too much) for the extent of their injuries. The most careful study was done in Florida over a decade ago for serious obstetrics and emergency-room cases. It found that tort recoveries were insufficient to meet the estimated future expenses of seriously injured patients.

Claims are resolved slowly and at great expense.

Some claims are resolved quickly, a small percentage even before any lawsuit is brought. However, the average physician payout reported to the National Practitioner Data Bank during 2003 came fully four and a half years after the incident causing the injury; the median was four years, similar to times reported by a national GAO survey of 1984 closed claims.

The malpractice system is expensive to run. It is very costly to pay talented attorneys and experts to investigate and argue out the issues of negligence, causation of injury, and damages in each case. It is well accepted that over half of system resources go to such administrative costs. The most careful study, now two decades old, found that tort claimants' net compensation was only 47 percent of total system cost.

Liability outcomes are also unpredictable and somewhat haphazard. This is most apparent in the very large variation in damage awards observed in cases of similar severity, especially for non-monetary losses. Many observers believe that lawsuits haphazardly determine negligence and causation as well—which is another way of saying that they believe many results invalid. This contention is more difficult to assess. Studies of legal outcomes differ in their conclusions on validity, as noted above. Part of the problem is that experts so readily disagree.

Liability fears hamper physician-patient communication.

Even though physicians have an ethical responsibility to share information with their patients, even about bad outcomes that they contributed to, doctors report that they are not always forthcoming with information that patients believe they deserve to have. The lack of transparency is an obvious problem for patients and is one reason why suits are brought in the first place, as discussed above. Physicians are harmed as well, as they too often see patients as potential litigants rather than as patients in whose best interests they are supposed to act.

Similarly, safety experts say that the threat of retrospective blaming makes it harder to encourage practitioners to communicate openly about accidents and close calls, learn from them, and make systemic im-

provements. This form of practitioner defensiveness has multiple roots, but liability fears at a minimum help rationalize silence in the aftermath of error or injury. Some expert safety reformers assert that the American legal system poses a severe obstacle to efforts to improve quality and safety. Exaggerated this contention may be, but when serious people say such things about liability, policymakers should conscientiously consider whether there are constructive alternatives.

Determinations of negligent injury are inherently subjective.

Negligent injuries are not objective phenomena like low birthweight, transfusion reaction, or death under anesthesia. They are, instead, subjective judgments about care and its aftermath reached using implicit rather than explicit standards about what constitutes appropriate care. Frequently, experts disagree about whether medical care caused an injury and even more about whether that care was negligent. Disagreement among experts arises in litigation in part because they are selected for partisan ends. But even neutral experts also often disagree. Some analyses find that experts' evaluation of negligence is influenced by severity of injury.

The lack of clear, agreed-upon standards helps explain how problems can so easily remain undisclosed and why case resolution is so expensive and slow—not only in litigation, but also in peer review or delicensure hearings. It also makes it very hard to reach policy agreement on the extent of problems, including the validity of liability results, and to build improvements

on that recognition. It seems no accident that progress in safety (and probably also in disclosure of injury) seems greatest to date where problems are patent, such as for anesthesia mishaps and misadministered drugs.

More constructive reforms

Current debates about malpractice are totally dominated by the “to cap or not to cap” argument. Liability issues have always “belonged” to doctors and lawyers, and their partisan interests have usually narrowed political debate. Today, some new voices are being heard. Some injured patients are complaining not just about their medical injury but about the inadequacy of legal and other responses. The Joint Commission on Accreditation of Healthcare Organizations and a committee of the Institute of Medicine have called for experimentation with nontraditional remedies. This brief concludes by sketching some alternatives to conventional tort reform, both within the current liability system and outside it.

The top five types of alternative reform

1. More even-handed liability reform
2. More data and performance benchmarks for legal and insurance systems
3. More attention to medical discipline
4. Increased support for patient safety research and development
5. Experimentation with alternate, nonjudicial systems

More even-handed liability reform

Tort reform has come to mean only *limitations* on traditional legal rules or practices. Even-handed reforms would seek to improve the processes of litigation, not the prospects of either side. Such reforms deserve much more attention and trial runs, as they are by definition not conventional. Given legal traditions, some ideas call for judicial adoption rather than legislation.

- *Structured guidance on damages to juries and judges.* This approach could replace flat caps that alter only the high end of awards. The alternative would provide guidance in assessing the non-monetary value of injuries. Reform could develop a hierarchy of severity of injury, so that decision makers could benchmark “their” case against others. Suggested ranges of value could be developed for each level of severity, based on prior cases, expert judgment, or research evidence on observed willingness to pay for safety measures. The reform would emphasize improving predictability of results and fairness across cases and would recognize that mistakes can be made by undervaluing as well as overvaluing a case.
- *Standardizing certain elements of determining economic losses.* For example, today, the inflation rate(s) that each jury or judge uses to project future costs of various medical services varies by case. Determining the value anew every time seems both inefficient and inevitably unfair to some claimants. One well run process could make the determination for all similar cases for the year. The same seems true for the discount rate used to convert estimated future losses to present value in order to set an appropriate current lump-sum award (assuming state law contemplates this).
- *Use of expert witnesses.* Tort reform often places restrictions on or calls for peer reviews of expert witnesses as ways to target allegedly biased or substandard experts. Instead, reform could promote easier access to good, objective experts. Attorneys on both sides could be required to share all expert opinions obtained, which would reduce “shopping” for a partisan opinion. Requests for an expert opinion could be routed through the judge, so that expert would not know which side was seeking an opinion. Other possibilities exist. The keys are to promote participation and objectivity of expert testimony.

Many even-handed ideas exist, some no doubt impractical, others in need of refinement. But the debate ought to address reforms’ impacts on efficiency and consistency, not on claimants versus defendants or their respective lawyers.

More performance measures for the legal and insurance systems

Clinicians are increasingly called upon to rely on evidence in making decisions that affect patient well-being—so-called evidence-based medicine. Similarly, purchasers of health care, such as employers and health insurance plans, look for reliable, valid, and readily accessible data, including data on provider performance, to better inform their purchasing decisions. The federal Government Performance and Results Act and many state “sunset” laws force administrative agencies to produce standards and information for evaluation. Yet the performance of lawyers, courts, and liability insurers generates little information useful for promoting accountability. Such basic data as the level of jury awards are tracked only by private reporters that lack completeness, objectivity, and consistency. Which lawyers or judges have backlogs of cases remains similarly obscure. Where information is gathered, it is often kept only in the format of standardized reports rather than being entered into data bases that facilitate additional analysis and ongoing accountability.

Similar concerns hamper oversight of insurers’ performance. Most regularly gathered information is aggregate data meant to help assess insurance companies’ solvency. Closed-claims reporting is rare. Given more information and support for analysis, improved benchmarks could evolve to improve accountability.

Medical discipline

It seems that, like the weather, everyone complains about medical discipline but no one does anything about it. In fairness, how to measure what state medical boards do and how to improve on current practices are not known. Boards could use help in deciding how to modify traditional complaint-driven methods of discipline in light of new ways to assess continuing competence of medical practitioners and in deciding how to alter adversarial processes to relate to emerging new paradigms of patient safety interventions within hospitals and large medical groups. Given the enormous public outlays for medical care each year, too little support goes to this and other approaches designed to protect quality of care and competence of practitioners.

Support for patient safety research and development

Since the Institute of Medicine’s landmark book *To Err Is Human* first captured public attention in late 1999, patient safety has become a recognized category for federal funding—but a small one, relative to the amount of disability and death at stake. Safety pioneers complain of slow progress, typically blaming failures of leadership and funding. Less recognized is an underlying mismatch of incentives: Changes need to occur within medical institutions and their staffs, but savings from reduced injury go mainly to patients and the

health plans that pay medical bills. Moreover, while medical providers who disclose problems and step forward to be responsible for safety hope that injured patients will be grateful for disclosure, rather than vengeful, they also greatly fear new litigation and the very large awards that can occasionally occur. Progress also needs to be made in accommodating the disparate worldviews and conflicting demands of legal accountability and patient safety improvement. It is desirable not only that injuries be disclosed but also that patients who have experienced preventable injuries receive reasonable compensation and remediation.

Experimentation with new approaches to compensation and patient safety

These approaches seek to improve compensation by covering more injured patients, with more structured payment rules and more predictable results. The reforms move away from traditional legal processes to make decisionmaking faster, less costly, and more consistent. Many would also cease using the contentious standard of “fault” for assigning responsibility and would seek to make determinations more expert. Most seek to harmonize approaches to compensation with the emerging paradigms of patient safety.

- *Enhanced disclosure with compensation.* Caregivers can voluntarily disclose injuries to promote both compensation and safety. Disclosure “surfaces” many problems traditionally hidden, and apologies or offers of compensation may avoid lawsuits or speed settlements. Some early experience within the veterans’ hospital system and elsewhere shows promise of improving patient relationships at little or no new legal cost, but providers remain leery of provoking new litigation. One proposal would reward disclosure by providing that making an early offer of compensation for out-of-pocket economic losses would bar subsequent legal claims for pain and suffering.
- *State-based administrative compensation.* This alternative would resemble Workers Compensation in many regards. Virginia and Florida have run such systems with some success for severely neurologically impaired newborns. Private insurers or self-insured groups would pay claims and disputes would be resolved routinely by expert administrative agencies. Access to courts would be limited to very unusual circumstances. Most proponents would replace fault as the basis of

Policymakers will have few if any new options to address the next malpractice crisis unless they begin now to experiment with good alternatives to conventional reforms.

compensation with a standard of avoidability or preventability of injury. This standard is easier to administer, as reviewers more readily agree about which injuries are preventable than which are negligent. Preventability would make more events eligible for compensation and would be more consistent with patient safety’s focus on prevention. The system would remain claims-driven, however, and formal adjudications would remain prominent.

- *Automatic payment for avoidable events listed in advance.* This approach would routinely compensate for classes of injuries determined in advance by experts to be generally avoidable, thus also avoiding adjudication. The listings would promote disclosure or discovery of worthy cases and prompt resolution thereafter. Avoidable classes of events (ACEs) would probably cover most injuries, and payment rules could be standardized. Disputes over ACE status and non-ACE injuries would be resolved through mediation and arbitration or some other agreed-upon private process. ACEs could be implemented as part of private reforms under which providers and patients or health plan enrollees would agree in advance to resolve injuries in the new system. Alternatively, they could be used to make administrative compensation systems more efficient and consistent in operations.
- *Federal alternatives.* Medicare could run an alternative system for its aged and disabled beneficiar-

ies. They are now at high risk of injury but are less likely to sue than are private-sector patients. The alternate could incorporate any of the reforms mentioned above or create different alternatives.

To maintain affordability of coverage under the new systems, most proposals assume that the new injury coverage would be secondary to existing health insurance plans, disability coverage, and other payors. Non-liability payors pay for most medical injuries today; maintaining this financing role is important for transitioning to a new medical injury system. Over time, these traditional payors would benefit along with the new injury system from improved prevention of injury and faster remediation of injuries that do occur.

The Enzi-Baucus bill pending in Congress would promote state demonstrations using some of these ideas. Private and Medicare demonstrations are also worthy of experiment.

Final thoughts

Knowledge about medical and legal performance has advanced considerably since the last malpractice “crisis” in the mid-1980s. Much remains to be learned, but it seems clear that the performance of the medical liability system can be substantially improved. Liability would be worth its moderate cost—a few percentage points within the \$1.5-trillion medical economy—if it successfully delivered the compensation, injury deterrence, and justice that advocates claim. Yet today’s record is spotty at best.

Health insurance and other non-liability coverage pay almost all compensation because few injured patients sue and still fewer collect. Payments arrive only slowly and at very high overhead cost. High rates of preventable error and injury persist. The quality of justice provided is questionable, given the omission of most injuries, very slow resolutions, and varying payouts in similar cases. Better systems would make practitioners more willing to disclose problems, compensate informally where possible, promptly feed back

information for improvement, and resolve disputes expeditiously.

Conventional tort reform like caps on awards successfully limit the scope of the current system but do not compensate more people, improve deterrence or equitably spread the impact of their cutbacks. Improvements call for more even-handed tort reforms as well as experimenting with non-courtroom-based injury resolution by medical institutions, health plans, or states. Other avenues can also help improve patient safety. Demanding patients and citizens can also support better information to improve quality competition, improved private accreditation and continuing education, more active accountability through licensure and health plan credentialing, and promotion of known quality/safety safeguards within medical institutions.

The recent malpractice crisis appears to be waning. Policymakers will have few if any new options to address the next crisis unless they begin now to experiment with good alternatives to conventional reforms.

Key Sources by Section

The literature on medical injury, malpractice, safety, and reforms is voluminous. To balance access to literature with brevity and accessibility to readers, references are limited to 100 significant sources, which are cited here by the subsection of this brief to which they apply.

Section	Source (numbered in references, next)
<i>Introduction</i>	1, 4, 7, 8, 16, 17, 31, 33, 83, 84
<i>Tort Reform Opponents</i>	8, 28, 29, 48, 76
1. No malpractice crisis	13, 31, 32, 46, 52, 67
2. Investment income & insurance prices	16, 38, 46, 52
3. Tort reform	3, 31, 32, 98, 33, 73, 94, 100
4. Tort protection of consumers	13, 28, 30, 43, 49, 50, 66, 82, 85, 99
5. Incompetent doctors	2, 24, 34, 54, 58, 65, 76, 86, 97
<i>Tort Reform Proponents</i>	4, 7, 52, 75
1. Too many liability claims	6, 13, 17, 25, 33, 45, 58, 68, 71, 92
2. Frivolousness of claims	30, 41, 47, 75, 86
3. Incompetent or biased juries	9, 49, 63, 79, 96
4. Doctors leaving practice	11, 26, 36, 39, 57, 83
5. Effects on affordability of care	31, 35, 56, 72, 95, 99
<i>Real Problems</i>	1, 17, 33
1. Too many avoidable injuries	2, 12, 18, 41, 58, 61, 77, 80, 81, 97
2. Poor compensation	17, 33, 86, 88
3. Inefficiency	40, 55, 69, 88
4. Liability fears, communication, & safety	10, 14, 41, 58, 61, 78, 97
5. Subjectivity of standards	27, 30, 64, 74, 91, 92
<i>Alternative reforms</i>	1, 41, 53, 66, 97
1. Even-handed tort reform	15, 17, 19, 22, 23
2. Data and performance benchmarks	2, 20, 42, 99
3. Medical discipline	5, 24, 34, 54
4. Patient safety research and development	2, 10, 12, 19, 58, 62, 97
5. Experimentation with nonjudicial systems	21, 23, 51, 37, 89, 90, 44, 59, 70
<i>Final thoughts</i>	23, 95

Selected References

1. ACP (American College of Physicians). 2003. "Reforming the Medical Professional Liability Insurance System, A Position Paper" http://www.acponline.org/hpp/liability_ins.pdf.
2. AHRQ (Agency for Healthcare Research and Quality). 2005. "Medical Errors & Patient Safety" (AHRQ online resources, periodically updated.) <http://www.ahrq.gov/qual/errorsix.htm>.
3. American Academy of Actuaries. 1996. "Medical Malpractice Tort Reform: Lessons from the States," Issue Brief, fall. <http://www.actuary.org/pdf/health/medmalp.pdf>.
4. American Medical Association. 2005. Medical Liability Reform (Web page with links, continuously updated.) <http://www.ama-assn.org/ama/pub/category/7861.html>.
5. Ameringer, Carl F. 1999. *State Medical Boards and the Politics of Public Protection*. Baltimore, MD: Johns Hopkins U. Press.
6. Andrews, Lori B, Carol Stocking, Thomas Krizek, Lawrence Gottlieb, Claudette Krizek, Thomas Vargish, and Mark Siegler. 1997. "An Alternative Strategy for Studying Adverse Events in Medical Care," *Lancet* 349(9048): 309–13.
7. ASPE (DHHS, Office of the Assistant Secretary for Planning and Evaluation). 2002. "Confronting the New Health Care Crisis: Improving Health Care Quality and Lowering Costs By Fixing Our Medical Liability System." Washington, DC: U.S. Dept. of Health & Human Services/ASPE, July 24. <http://aspe.hhs.gov/daltcp/reports/litrefm.pdf>.
8. ATLA (Association of Trial Lawyers of America). 2005. Press Room: Health Care Resource Center. (web page with links, continuously updated.) <http://atla.org/pressroom/FACTS/health/index.aspx>.
9. Baker, Tom. 2005. "Reconsidering the Harvard Medical Practice Study: Conclusions about the Validity of Medical Malpractice Claims," *Journal of Law, Medicine & Ethics* 33(3, fall): 501–514.
10. Berenson, Robert A. 2005. "Malpractice Makes Perfect," *The New Republic*, October 10, 17–21.
11. Berenson, Robert A., Sylvia Kuo, and Jessica H. May. 2003. "Medical Malpractice Liability Crisis Meets Markets: Stress in Unexpected Places," Washington, DC: Center for Studying Health System Change. Sept. Issue Brief 68: 1–7.
12. Berwick, Donald M. 2002. "Big Issues in the Next Ten Years of Improvement," Presentation to Academy for Health Services Research and Health Policy, Annual Meeting, Washington, DC: June 24. <http://www.academyhealth.org/2002/program/berwick.pdf>.
13. Black, Bernard S., Charles M. Silver, David A. Hyman, and William M. Sage. 2005. "Stability, Not Crisis: Medical Malpractice Claim Outcomes in Texas, 1988–2002," *Journal of Empirical Legal Studies* 2: 207–259.
14. Blendon Robert J., Catherine M. DesRoches, Mollyann Brodie, John M. Benson, Allison B. Rosen, Eric Schneider, Drew E. Altman, Kinga Zapert, Melissa J. Herrmann, and Annie E. Steffenson. 2002. "Views of Practicing Physicians and the Public on Medical Errors," *New England Journal of Medicine* 347(24): 1933–40.
15. Blumstein, James F., Randall R. Bovbjerg, and Frank A. Sloan. 1991. "Beyond Tort Reform: Developing Better Tools for Assessing Damages for Personal Injuries," *Yale Journal on Regulation* 8(1): 171–212 (Winter).
16. Bovbjerg, Randall R. 2005. "Malpractice Crisis and Reform," *Clinics in Perinatology* 32(1): 203–233 (March).
17. Bovbjerg, Randall R. 1995. *Medical Malpractice: Problems & Reforms—A Policy-Maker's Guide to Issues and Information*. Washington, DC: The Intergovernmental Health Policy Project, George Washington University, September.
18. Bovbjerg, Randall R., and Robert A. Berenson. Forthcoming. "Enterprise Liability in the 21st Century," in *Medical Malpractice and the U.S. Health Care System: New Century, Different Issues*, edited by William M. Sage and Rogan Kersh, Cambridge University Press.
19. Bovbjerg, Randall R., Robert H. Miller, and David W. Shapiro. 2001. "Paths to Reducing Medical Injury: Professional Liability and Discipline vs. Patient Safety—and the Need for a Third Way," *Journal of Law, Medicine & Ethics* 29(3&4): 369–380 (Fall and Winter).
20. Bovbjerg, Randall R., and Joel M. Schumm. 1998. "Judicial Policy and Quantitative Research: Indiana's Statute of Limitations for Medical Practitioners." *Indiana Law Review* 31(4): 1051–1087.
21. Bovbjerg, Randall R., and Frank A. Sloan. 1998. "No Fault for Medical Injury: Theory and Evidence." *University of Cincinnati Law Review* 67(1): 53–123 (Fall).
22. Bovbjerg, Randall R., Frank A. Sloan, and James F. Blumstein. 1989. "Valuing Life and Limb in Tort: Scheduling 'Pain and Suffering,'" *Northwestern University Law Review* 83(4): 908–976 (Summer).
23. Bovbjerg, Randall R., and Laurence R. Tancredi. 2005. "Liability Reform Should Make Patients Safer: 'Avoidable Classes of Events' Are a Key Improvement," *Journal of Law, Medicine & Ethics* 33(3):478–500 (Fall).
24. Brennan, Troyen A., and Donald M. Berwick. 1996. *New Rules: Regulation, Markets and the Quality of American Health Care*. San Francisco: Jossey-Bass.
25. Brennan, Troyen A., Lucien L. Leape, Nan M. Laird, Liesi Hebert, A. Russell Localio, Ann G. Lawthers, Joseph P. Newhouse, Paul C. Weiler and Howard H. Hiatt. 1991. "Incidence of Adverse Events and Negligence in Hospitalized Patients." *New England Journal of Medicine* 324: 370–376.
26. Bull, John M.R. 2004. "Doctors Can't Prove Thinning Ranks," Allentown (PA) Morning Call, April 23, 2004.
27. Caplan, Robert A., Karen L. Posner, and Frederick W. Cheney. 1991. "Effect of Outcome on Physician Judgments of Appropriateness of Care," *JAMA* 265(15): 1957–60.
28. Center for Justice and Democracy. 2003. CJ&D in the News, quotation from "Medical Malpractice: Are Lawsuits Out of Control?" *Congressional Quarterly Weekly*, March 14, 2003. <http://www.centerjd.org/press/stories/03-03-142.htm>.
29. Center for Justice and Democracy. 2002. "A Short Guide to Understanding Today's Medical Malpractice Insurance 'Crisis' (and Useful Questions to Ask), NY: Center for Justice & Democracy," September 25 - <http://www.centerjd.org/MediaGuide.pdf>.
30. Cheney, Frederick W., Karen L. Posner, Robert A. Caplan, and Richard J. Ward. 1989 "Standard of Care and Anesthesia Liability," *JAMA* 261(11): 1599–603.
31. CBO (Congressional Budget Office). 2004. "Limiting Tort Liability for Medical Malpractice [issue brief]. January 8. <http://www.cbo.gov/ftpdocs/49xx/doc4968/01-08-MedicalMalpractice.pdf>.
32. CBO (Congressional Budget Office). 2004. "The Effects of Tort Reform: Evidence from the States." June. <http://www.cbo.gov/ftpdocs/55xx/doc5549/Report.pdf>.
33. Danzon, Patricia M. 1985. *Medical Malpractice: Theory, Evidence, and Public Policy*. Cambridge, MA: Harvard University Press.
34. Derbyshire, Robert C. 1965. "What Should the Profession Do about the Incompetent Physician?" *JAMA* 194(12): 1287–90.
35. Dubay, Lisa, Robert Kaestner, and Timothy Waidmann. 1999. "The Impact of Malpractice Fears on Cesarean Section Rates," *Journal of Health Economics* 18: 518–519.
36. Encinosa, William E., and Fred J., Hellinger. 2005. "Have State Caps On Malpractice Awards Increased The Supply Of Physicians?" *Health Affairs* 10.1377/hlthaff.w5.250, posted May 31.
37. Enzi, Sen. Michael B., and Sen. Max Baucus, The Fair and Reliable Medical Justice Act, Introduced in Senate, June 29, 2005, S. 1337.
38. GAO (US Governmental Accountability Office, before July 2004 General Accounting Office). 2005. "Malpractice Insurance: Multiple Factors Have Contributed to Increased Premium Rates." Rpt No GAO-03-702. June. <http://www.gao.gov/new.items/d03702.pdf>.

39. GAO, 2003. "Malpractice: Implications of Rising Premiums on Access to Health Care." Rpt No GAO-03-836. August. <http://www.gao.gov/new.items/d03836.pdf>.
40. GAO. "Medical Malpractice: Characteristics of Claims Closed in 1984." (Washington, DC: GAO, April 1987, pub. no. GAO/HRD-87-55) <http://archive.gao.gov/d2t4/132815.pdf>.
41. Gibson, Rosemary, and Janardan Prasad Singh. 2003. *Wall of Silence: The Untold Story of the Medical Mistakes that Kill and Injure Millions of Americans*. Washington, DC: Lifeline Press.
42. Government Performance and Results Act of 1983. Public Law 103-62, Office of Management and Budget copy at www.whitehouse.gov/omb/mgmt-gpra/gplaw2m.html; GAO reports at <http://www.gao.gov/new.items/gpra/gpra.htm>.
43. Grady, Mark. 1988. "Why Are People Negligent?: Technology, Nondurable Precautions, and the Medical Malpractice Explosion." *Northwestern University Law Review* 82: 293-334.
44. Havighurst, Clark C., and Laurence R. Tancredi. 1974. "Medical Adversity Insurance: A No-Fault Approach to Medical Malpractice and Quality Assurance." *Milbank Mem Fund Q* 51: 125-168, reprinted in *Ins Law J* 1974;69(Feb): 69-100.
45. Hensler, Deborah, M., Susan Marquis, Allan F. Abrahamse, et al. 1991. "Compensation for Accidental Injuries in the United States." Santa Monica, CA: Rand Corporation, R-3999-HHS/ICJ.
46. Herring, Richard J., and Robert E. Litan, eds. 2004. *Brookings-Wharton Papers on Financial Services: 2004 [multiple papers on crisis]*. Washington, DC: Brookings Institution Press, eds' summary at http://www.brookings.edu/press/books/chapter_1/BW_papersonfinancialservices2004.pdf.
47. Hickson, Gerald B., Ellen Wright Clayton, Penny B. Githens, and Frank A. Sloan. 1992. "Factors that Prompted Families to File Medical Malpractice Claims Following Perinatal Injuries," *JAMA* 267(10):1359-63.
48. Hunter, J. Robert, and Joanne Doroshov. 2002. "Premium Deceit: The Failure of "Tort Reform" to Cut Insurance Prices." NY: Center for Justice & Democracy [http://www.centerjd.org/PremiumDeceit %20.pdf](http://www.centerjd.org/PremiumDeceit%20.pdf).
49. Hyman, David A., and Charles Silver. 2005. "The Poor State of Health Care Quality in the U.S.: Is Malpractice Liability Part of the Problem or Part of the Solution?" *Cornell Law Review* 90: 893-993. (May).
50. IOM (Institute of Medicine, Committee on Quality of Health Care in America). 2001. *Crossing the Quality Chasm: A New Health System for the 21st Century*. Washington, DC: National Academy Press.
51. IOM (Committee on Rapid Advance Demonstration Projects) 2002 "Liability: Patient-Centered and Safety-Focused, Nonjudicial Compensation," chapter 5 in *Fostering Rapid Advances in Health Care: Learning from Systems Demonstrations*. Washington, DC: IOM. <http://www.nap.edu/books/0309087074/html/>.
52. Insurance Information Institute. 2005. Medical Malpractice [web article], September <http://www2.iii.org/media/hottopics/insurance/medicalmal/>.
53. JCAHO (Joint Commission on Accreditation of Healthcare Organizations). 2005. "Health Care at the Crossroads: Strategies for Improving the Medical Liability System and Preventing Patient Injury," white paper, February. http://www.jcaho.org/news+room/press+kits/tort+r+reform/medical_liability.pdf.
54. Jost, Timothy S. 2003. "Legal Issues in Quality of Care Oversight in the United States: Recent Developments," *European Journal of Health Law* 10(1): 11-25.
55. Kakalik, James S., and Nicholas M. Pace. 1986. "Costs and Compensation Paid in Tort Litigation." Santa Monica, CA: RAND Institute for Civil Justice, , no. R-3391-ICJ.
56. Kessler, Daniel P., and Mark McClellan. 1996. "Do Doctors Practice Defensive Medicine?" *Quarterly Journal of Economics* 111(2, May): 353-390.
57. Kessler, Daniel P., Willima M. Sage, and David J. Becker. 2005. "Impact of Malpractice Reforms on the Supply of Physician Services," *JAMA* 293(21): 2618-25.
58. Kohn, Linda T., Janet M. Corrigan, and Molla S. Donaldson, eds (for the Institute of Medicine's Committee on Quality of Health Care in America). 2000. *To Err Is Human: Building a Safer Health System*. Washington, DC: National Academy Press. (esp. Appendix C, Literature Summary).
59. Kraman, Steve S., & Ginny Hamm. 1999. "Risk Management: Extreme Honesty May Be the Best Policy." *Annals of Internal Medicine* 131(12): 963-7.
60. Lagasse, Robert S. 2002. "Anesthesia Safety: Model or Myth? A Review of the Published Literature and Analysis of Current Original Data." *Anesthesiology* 97: 1609-17.
61. Lamb, Rae M., David M. Studdert, Richard Bohmer, Donald M. Berwick, and Troyen A. Brennan. 2003. "Hospital Disclosure Practices: Results of a National Survey," *Health Affairs* 22(2 Mar-Apr): 73-83.
62. Leape, Lucian L., and Donald M. Berwick. 2005. "Five Years after *To Err is Human*: What Have We Learned?" *JAMA* 293: 2384-90.
63. Localio, A. Russell, Ann G. Lawthers, Troyen A. Brennan, Nan M. Laird, Leisi E. Hebert, Lynn M. Peterson, Joseph P. Newhouse, Paul C. Weiler, and Howard H. Hiatt. 1991. "Relation Between Malpractice Claims and Adverse Events Due to Negligence." *New England Journal of Medicine* 325: 245-251.
64. Localio, A. Russell, Susan L. Weaver, J. Richard Landis, Ann G. Lawthers, Troyen A. Brennan, Liesi Hebert, and Tonya J. Sharp. 1996. "Identifying Adverse Events Caused by Medical Care: Degree of Physician Agreement in a Retrospective Chart Review." *Annals of Internal Medicine* 125: 457-64.
65. Massachusetts Board of Registration in Medicine. 2004. Medical Malpractice Analysis, November http://www.massmedboard.org/public/pdf/announcements/Med_Mal_2004.pdf.
66. Mello, Michelle M., and Troyen A. Brennan, 2002. "Deterrence of Medical Errors: Theory and Evidence for Malpractice Reform." *University of Texas Law Review* 80(7): 1595-1637.
67. Mello, Michelle M., David M Studdert, and Troyen A Brennan. 2003. "The New Medical Malpractice Crisis." *New England Journal of Medicine* 348: 2281-2284.
68. Mills, Don Harper, John S. Boyden, and David S. Rubsamen. 1977. "Report on the Medical Insurance Feasibility Study." San Francisco: Sutter Publications, sponsored jointly by the California Medical Association and California Hospital Association.
69. NPDB (National Practitioner Data Bank). 2004. "2003 Annual Report." Rockville, MD: USDHHS, Health Resources and Services Administration http://www.npdb-hipdb.com/pubs/stats/2003_NPDB_Annual_Report.pdf.
70. O'Connell, Jeffrey, and Patrick B. Bryan. 2000-2001. "More Hippocrates, Less Hypocrisy: 'Early Offers' as a Means of Implementing the Institute of Medicine's Recommendations on Malpractice Law." *Journal of Law & Health* 15(1): 23-51.
71. "Opinion Survey on Medical Professional Liability." 1957. *JAMA* 164: 1583-1594.
72. OTA (Office of Technology Assessment, U.S. Congress). 1994. "Defensive Medicine and Medical Malpractice." Washington, DC: U.S. Government Printing Office, July, OTA-H-602. <http://www.wvs.princeton.edu/ota/disk1/1994/9405/9405.PDF>.
73. Pace, Nicholas M., Daniela Golinelli, and Laura Zakaras. 2004. "Capping Non-Economic Awards in Medical Malpractice Trials: California Jury Verdicts under MICRA." Santa Monica, CA: RAND Institute for Civil Justice, July <http://www.rand.org/publications/MG/MG234/MG234.pdf>.
74. Posner, Karen L., Robert A. Caplan, Frederick W. Cheney. 1996. "Variation in Expert Opinion in Medical Malpractice Review." *Anesthesiology* 85(5): 1049-1054, November.
75. PIAA (Physician Insurers Association of America). 2005. Illinois General Assembly, House Judiciary 1-Civil Law Committee Hearing Medical Malpractice, Testimony of Lawrence E. Smarr, Presi-

- dent (data from PIAA Data Sharing Project). <http://www.ihatoday.org/issues/liability/talk/smartertest.pdf>PIAA.
76. Public Citizen. 2004. "Medical Malpractice Briefing Book: Challenging the Misleading Claims of the Doctors' Lobby." *Congress Watch, Rev.* August <http://www.citizen.org/documents/MedMalBriefingBook08-09-04.pdf>.
 77. Reason, James T. 1990. *Human Error*. New York: Cambridge University Press.
 78. Robinson, Andrew R., Kirsten B. Hohmann, Julie I. Rifkin, Daniel Topp, Christine M. Gilroy, Jeffrey A. Pickard, and Robert J. Anderson. 2002. "Physician and Public Opinions on Quality of Health Care and the Problem of Medical Errors." *Archives of Internal Medicine* 162: 2185–2190.
 79. Saks, Michael J. 1992. "Do We Really Know Anything About the Behavior of the Tort Litigation System—And Why Not?" *Univ. of PA Law Rev.* 140: 1147–1292.
 80. Sage, William M., Kathleen E. Hastings, and Robert A. Berenson. 1994. "Enterprise Liability for Medical Malpractice and Health Care Quality Improvement." *American Journal of Law and Medicine* 20(1&2): 1–28.
 81. Schoenbaum, Stephen C., and Randall R. Bovbjerg. 2004. "Malpractice Reform Must Include Steps to Prevent Medical Injury." *Annals of Internal Medicine* 140(1): 51–53.
 82. Schwartz, Gary T. 1994. "Reality and the Economic Analysis of Tort Law: Does Tort Law Really Deter?" *UCLA Law Review* 42: 377, 381–87.
 83. Sloan, Frank A., and Randall R. Bovbjerg. 1989. "Medical Malpractice: Crises, Response and Effects." *Research Bulletin*, Health Insurance Association of America, May.
 84. Sloan, Frank A., Randall R. Bovbjerg, and Penny B. Githens. 1991. *Insuring Medical Malpractice*. Oxford and New York: Oxford University Press.
 85. Sloan, Frank A., Kathryn Whetten-Goldstein, Penny B. Githens, and Stephen S. Entman. 1995. "Effects of the Threat of Medical Malpractice Litigation and Other Factors on Birth Outcomes." *Medical Care* 33(7): 700–14.
 86. Sloan, Frank A., Penny B. Githens, Ellen W. Clayton, Gerald B. Hickson, Douglas A. Gentile, David F. Partlett. 1993. *Suing for Medical Malpractice* Chicago: Univ. of Chicago Press.
 87. Sloan Frank A., Paula M. Mergenhagen, W. Bradley Burfield, Randall R. Bovbjerg, and Mahmud Hassan. 1989. "Medical Malpractice Experience of Physicians: Predictable or Haphazard?" *JAMA* 262(23): 3291–7.
 88. Sloan, Frank A., and Stephen S. van Wert. 1991. "Cost and Compensation of Injuries in Medical Malpractice." *Law & Contemporary Problems* 54(1–2): 131–68. (Winter.)
 89. Studdert, David M., and Troyen A. Brennan. 2001. "No-Fault Compensation for Medical Injuries: The Prospect for Error Prevention." *JAMA* 286(2): 217–23.
 90. Studdert, David M., and Troyen A. Brennan. 2001. "Toward a Workable Model of 'No-Fault' Compensation for Medical Injury in the United States." *American Journal of Law & Medicine* 27(2&3): 225–52.
 91. Taragin, Mark I., Laura R. Willett, Adam P. Wilczek, Richard Trout, Jeffrey L. Carson. 1992. "The Influence of Standard of Care and Severity of Injury on the Resolution of Medical Malpractice Claims." *Annals of Internal Medicine* 117(9): 780–4.
 92. Thomas Eric J., Stuart R. Lipsitz, David M. Studdert, and Troyen A. Brennan. 2002. "The Reliability of Medical Record Review for Estimating Adverse Event Rates." *Annals of Internal Medicine* 136: 812–6, erratum at 137(2002): 147.
 93. Thomas, Eric J., David M. Studdert, Helen R. Burstin, E. John Orav, Timothy Zeena, Elliott J. Williams, K. Mason Howard, Paul C. Weiler, and Troyen A. Brennan. 2000. "Incidence and Types of Adverse Events and Negligent Care in Utah and Colorado." *Medical Care* 38: 261–71.
 94. Thorpe, Kenneth E. 2004. "The Medical Malpractice 'Crisis': Recent Trends and the Impact of State Reforms." *Health Affairs* Web Exclusive. Jan 21: W4-20–W4-30.
 95. Tillinghast-Towers, Perrin. 2004. U.S. "Tort Costs: 2004 Update. Trends and Findings on the Cost of the US Tort System." *Medical Malpractice Tort Costs*, Appendix 5. www.towersperrin.com/tillinghast/publications/reports/Tort_2004/Tort.pdf.
 96. Vidmar, Neil. 1995. *Medical Malpractice and the American Jury: Confronting the Myths about Jury Incompetence, Deep Pockets, and Outrageous Damage Awards*. Ann Arbor: University of Michigan Press.
 97. Wachter, Robert M., and Kaveh G. Shojania. 2004. *Internal Bleeding: The Truth behind America's Terrifying Epidemic of Medical Mistakes*. New York: Rugged Land.
 98. Weiss, Martin D., Melissa Gannon, and Stephanie Eakins. 2003. "Medical Malpractice Caps." Palm Beach Gardens, FL: Weiss Ratings, Inc., revised June 3. <http://www.weissratings.com/MedicalMalpractice.pdf>."
 99. Wennberg, John E. 1999. "Understanding Geographic Variations in Health Care Delivery." *New England Journal of Medicine* 340: 52–53.
 100. Zuckerman, Stephen, Randall R. Bovbjerg, and Frank A. Sloan. 1990. "Effects of Tort Reforms and Other Factors on Medical Malpractice Insurance Premiums." *Inquiry* 27(2): 167–182 (Summer).

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