SHOULD MALPRACTICE LIABILITY REFORM PROCEED THROUGH CONTRACT?

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Proponents of contractual liability argue that tort reform is best accomplished by voluntary contracting over malpractice liability because patients will contract for the liability rules that maximize their welfare. This article undertakes the first in-depth economic analysis of this claim and shows that, voluntary contracting over malpractice liability does not result in the optimal imposition of liability, even when patients are informed about the costs and benefits of imposing liability. To the contrary, contracting over liability creates systematic inefficient incentives for patients to waive liability even when they would benefit from the imposition of liability by the state. Patients cannot efficiently regulate quality through voluntary contracting with individual providers because medical quality is a collective good. Voluntary contractual liability also cannot regulate pre-contractual care because medical providers cannot use voluntary liability to signal quality. Contracting through medical entities (such as Managed Care Organizations) also is inefficient. MCO contracting is inefficient because it is plagued by an “adverse selection” problem. MCOs must charge a premium for insurance contracts that offer liability to reflect the fact that these contracts are disproportionately preferred by the chronically ill, who have substantially higher health care costs. As a result, liability policies can be expected to have premiums that are many times more expensive than no-liability policies, which will push many patients to select lower-quality no-liability policies even when they would prefer that liability be imposed. Accordingly, contracting over liability cannot be relied upon as a method to reform the tort system, even if it would be shown that patients can accurately assess the costs and benefits of liability. Legislatures seeking to benefit patients should not embrace contractual liability without first attempting effective reform of malpractice liability.

Each year, approximately 98,000 people are killed by medical error, more than are killed in automobile accidents. In addition, medical error annual injures over a million people. These errors cause enormous human suffering. They also increase health care costs. Indeed, errors in hospitals alone cost been $17 and 29 billion annually. Medical providers could prevent many of these errors by taking additional care. The central challenge is to induce them to do so.

Malpractice liability potentially is one of the most effective mechanisms for reducing medical error. Liability for negligent medical treatment can deter providers from knowingly providing inadequate treatment. It also can deter the accidental provision of erroneous treatment by encouraging medical providers to invest in their quality of care.

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1 INSTITUTE OF MEDICINE, TO ERR IS HUMAN: BUILDING A SAFER HEALTH System 26 (Linda T. Kohn et al. eds., 2000) [hereinafter To Err is Human].
capacity to provide good quality care. Thus, when properly designed, malpractice liability can enhance the welfare of patients and providers alike by enabling patients to obtain, and providers to charge for, the quality of care that maximizes their welfare.²

Notwithstanding its potential, most experts agree that the current malpractice liability system does not deter medical error as effectively as it should. Malpractice liability obviously needs to be reformed. Moreover, many experts even agree on at least one of the forms that reform should take; they advocate imposing liability for medical error directly on medical entities, such as hospitals and Managed Care Organizations (MCOs).³ Experts disagree, however, about whether these reforms should be undertaken through direct tort reform or through reforms implemented through contract.

Proponents of contractual liability claim that the best way to reform malpractice liability is to end government control over malpractice liability.⁴ Instead, states should allow patients and medical providers to determine the rules to govern liability for medical error by contract. This freedom to contract over malpractice liability should include the right to contract out of liability altogether, it is argued.⁵

² See infra Section I. For a thorough discussion of the economic justifications for malpractice liability for both physicians and MCOs, including for accidental error, see Jennifer Arlen & W. Bentley MacLeod, Malpractice Liability for Physicians and Managed Care Organizations, 78 NYU L. REV. 1929 (2003).

³ See infra note 59 for articles advocating entity-level liability.

⁴ These proposals generally would allow states to adopt rules governing malpractice liability. Yet any malpractice liability that a state adopts would operate purely as a default rule that patients and medical providers can accept or alter by contract (not unlike existing corporate statutes).

⁵ Professor Richard Epstein is one of the leading proponents of contractual liability for malpractice. See, e.g., Richard Epstein, Medical Malpractice: The Case for Contract, 1 AMERICAN BAR FOUNDATION RESEARCH JOURNAL 119 (1976) (contractual physician liability); Richard Epstein, Contractual Principle Versus Legislative Fixes: Coming to Closure on the Unending Travails of Medical Malpractice, 54 DePaul L. REV. 503 (2005). Other scholars who favor contracting over malpractice liability include Kenneth S. Abraham & Paul C. Weiler, Enterprise Medical Liability and the Evolution of the American Health Care System, 108 HARV. L. REV. 381(1994) (contractual enterprise liability for hospitals); Michelle M. Mello and Troyan A. Brennan, Deterrence of Medical Errors: Theory and Evidence for Malpractice Reform, 80 TEXAS L. REV. 1595 (2002) (contractual enterprise liability for hospitals); Patricia M. Danzon, Tort Liability: A Minefield for Managed Care, 26 J. LEGAL STUD. 491 (1997) (contractual entity level liability for MCOs); Clark C. Havighurst, Vicarious Liability: Relocating Responsibility for the Quality of Medical Care, 26 AM. J.L. & MED. 7 (2000) (contractual enterprise liability for MCOs); Clark C. Havighurst, HEALTH CARE CHOICES: PRIVATE CONTRACTS AS INSTRUMENTS OF HEALTH REFORM 171 (1995); William Sage, Enterprise Liability and the Emerging Managed Health Care System, 60 LAW & CONTEMP. PROBLEMS 159, 163 (1997) (discussing MCO channeling liability and quality control through MCOs is superior to channeling it through hospitals); Clark C. Havighurst, Private Reform of Tort-Law Dogmas: Market Opportunities and Legal Obstacles, 49 LAW & CONTEMP. PROB. 143 (1986); Glen O. Robinson, Rethinking the Allocation of Medical Malpractice Risks Between Patients and Providers, 49 LAW & CONTEMP. 173 (1986) (contractual liability for physicians); see also Keith Hylton, Agreements to Waive or to Arbitrate Legal Claims: An Economic Analysis, 3. CT. ECON. REV. 209 (2000) (parties to consensual relationships should be permitted to contract over liability); cf. E. Haavi Morreim, Medicine Meets Resource Limits: Restructuring the Legal Standard of Care, 59 U. PITT. L. REV 1
Contracting over liability clearly is superior to liability imposed by tort, proponents claim, as long as patients contract effectively and freely over liability. The central goal of malpractice liability is to induce medical providers to deliver the level of care patients are willing to pay for. States can best achieve this goal, it claimed by, allowing the patients and providers to contract over liability because they have incentives to adopt the liability rules that maximize patients’ welfare because patients bear all the costs of liability, and obtain all the benefits, and thus should have optimal incentives to contract into liability. Patients do need to be able to contract voluntarily and they also need to be informed. But they do not need to be informed about actual provider quality. They only need to understand how liability rules affect the costs and benefits of medical care. Accordingly, as long as patients can determine the costs and benefits of imposing liability and are able to contract freely, they will contract for the liability rules that maximize their welfare, it is argued. Contracted for liability rules thus will necessarily be as good as (or better than) anything the state could impose by fiat.

Given this premise, proponents argued that contracted for liability is in fact superior to malpractice liability because it grants authority to control liability to people who have the best information about the direct effects of liability, patients and medical providers. Contracted for liability also is superior because it allows liability rules to vary across patients. Variation in the standard of care imposed by liability benefits patients, it is argued, because patients do not all want the same quality of medical care. Whereas malpractice liability forces all patients to accept the same standard of care, contractual liability allows each patient to contract separately for the level of care that he is willing to pay for. Patients who want little care can contract for a lower standard of care – or out of liability altogether. By contrast, those who want more care can insist that liability be imposed.

Even most advocates of contractual liability agree that contracting over malpractice liability faces special concerns that limit the forms that contracting should take. Specifically, contracting over liability is unlikely to be optimal if medical providers can require patients seeking care to agree to waive liability for medical negligence as a condition of obtaining service. These adhesion contracts executed with individual providers at the point of service are particularly likely to result in patients accepting waivers that harm them. Patients contracting with individual

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6 This article focuses on the deterrence goal of malpractice liability. For a discussion of malpractice as a mechanism for compensating patients see infra notes 40 and 112.

7 For an excellent summary of the conventional economic case for contract see PAUL WEILER, MEDICAL MALPRACTICE ON TRIAL, 96 (1991)(summarizing this argument but concluding that states should not permit unfettered individual provider contracting over liability). Early articles presenting arguments in favor of contracting over malpractice liability include Epstein, supra note 5; Richard Epstein, Medical Malpractice, Imperfect Information, and the Contractual Foundation for Medical Services, 49 LAW & CONTEMP. PROB. 201 (1986); Havighurst, supra note 5; Robinson, supra note 5.

8 See sources in note 5 supra.
medical providers generally do not know contract terms in advance, when it is possible to select a different provider. Instead, they generally receive providers’ contracts after they arrive in the providers’ office, when they often are no longer in a position to bargain as effectively for terms they prefer. Moreover, patients often do not even read standard form medical contracts. As a result, contracting over liability through adhesion contracts cannot be relied upon to produce optimal liability terms because patients contracting directly with medical providers for needed care may knowingly agree to waiver terms that harm them in order to obtain immediate services that they cannot live without. Indeed, courts are so concerned that patients cannot exercise freewill when presented with standard form adhesion contracts by their medical providers that they consistently have invalidated this form of contracting over liability.9

Contractual liability proponents correctly observe that it is possible to design a system that allows for contracting over liability and eliminates the concern about duress. Courts can ensure that patients have a true choice about whether they want to waive liability by requiring any provider seeking a waiver (or liability reduction) to also offer her patients the right to obtain services with the full protections that liability offers (albeit at a higher price). Alternatively, and perhaps preferably, voluntary contracting could be assured by channeling both liability and the right to contract over it, through Managed Care Organizations (MCOs) who could contract directly with their subscribers.10 MCO contractual liability could promote voluntary contracting, even when MCOs only offer subscribers one choice, it is argued, because contracting takes place long before the patient needs medical care. Patients thus can exercise their preferences – either directly or through their employers -- free from the pressure of medical duress. Moreover, patients contract with MCOs as part of a benefits package governing all employees, thereby giving patients the benefit of the bargaining power and the information that results from collective bargaining over and analysis of benefits packages.

These forms of contractual liability do appear to ensure voluntary contracting over liability. The question that has yet to be addressed, however, is whether voluntary contracting over malpractice liability also ensures optimal contracting. Specifically, will this form of contracting over liability result in patients imposing liability whenever it is optimal for them to do so: i.e., whenever they would benefit from liability imposed by the state? This question is important because if contractual liability is inefficient – if, for example, it provides systematically inefficient incentives to waive liability, then contracting over liability cannot be relied upon to produce the

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9 See infra note 75 and accompanying text (discussing the cases invalidating exculpatory provisions in providers’ contracts).

10 E.g., Abraham & Weiler, supra note 5 (proposing contractual enterprise liability for hospitals); Mello & Brennan, supra note 5 (contractual enterprise liability for hospitals); Danzon, supra note 5 (MCO liability should be contractual); Havighurst, Vicarious Liability, supra note 5 (supporting contractual enterprise liability for MCOs); Havighurst, Health Care Choices, supra note 5, at 171 (same).
liability rules that maximize patients’ welfare. Contracting would lose its claim to being absolutely superior tort liability.

To date, proponents of contractual liability have assumed that voluntary contracting over malpractice liability is optimal, provided that patients know the costs and benefits of contracting into liability. Yet this assumption is based on economic models of products liability that show that contracting over liability can induce producers to invest optimally in product quality. These models do not apply to voluntary contracting for malpractice liability, however, because the two situations differ in important ways. Among the most important differences is that these models examine contracting through adhesion contracts. They thus do not establish whether contracting produces optimal outcomes when it is voluntary.

This article undertakes the first in-depth economic analysis of voluntary contracting over malpractice liability and shows that contracting over malpractice liability will not result in the optimal imposition of liability, even when patients are informed about the costs and benefits of imposing liability. Specifically, this article examines both voluntary contracting through individual providers and contracting over liability through MCOs and shows that both forms of contractual liability create inefficient incentives for patients to waive liability, even when they would be better off were liability imposed. Patients who would have benefited from malpractice liability nevertheless may agree to waive contracted-for liability because patients derive less benefit from liability imposed by contract than they can derive from

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12 To the best of this author’s knowledge, this is the first article to systematically examine the whether voluntary contracting over malpractice liability is optimal when patients are informed about the costs and benefits of imposing liability. In previous work, I have briefly considered some of the problems with individual contractual liability. Arlen & MacLeod, supra note 2, 1998-2004; Arlen, supra note 12. This article extends this analysis and then considers, for the first-time, whether the problems with individual voluntary contractual liability can be remedied through the use of MCO contractual liability and identifies the coordination and adverse selection problems associated with this form of contracting.

There exists an extensive literature on problems with contracting over malpractice liability. For a summary of some of the informational problems associated with this form of contracting in the malpractice context see Arlen & MacLeod, supra note 2, at 1999-2000 (discussing information problems); Jennifer Arlen, Private Contractual Alternatives to Malpractice Liability, 245, 253-54, 263-264, in MEDICAL MALPRACTICE AND THE U.S. HEALTH CARE SYSTEM (William M. Sage & Rogan Kersh, eds., 2006) (discussing information problems). For an excellent discussion of information problems associated with contracting for liability to govern product defects see, e.g., Mark Geistfeld, The Political Economy of Neocontractual Proposals for Products Liability Reform, 72 TEXAS LAW REVIEW 803 (1994) (discussing information problems associated with contracting over liability for product defects). But see Alan Schwartz, Proposals for Products Liability Reform: A Theoretical Synthesis, 97 YALE LAW JOURNAL 353 (1988) (contesting the claim that there are significant information impediments to effective contracting over products liability).

The present article examines only contracting over liability and not contracting over the process governing how liability determinations are made. It does not examine, therefore, contracting for mandatory arbitration.
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liability imposed by the state because contractual liability is a less effective mechanism for regulating certain investments in medical quality. Because patients do not derive as great benefit from contractual liability, they may waive it even when they would be better off were liability imposed. Contracting over liability thus cannot be relied upon to ensure that liability is imposed whenever it benefits patients.13

To demonstrate this claim, this article examines both forms of voluntary contracting over liability: voluntary individual contracting (for example, through two-price contracts) and entity-level contracting with MCOs.14 This article initially examines liability contracts between individual providers and patients under a regime that requires providers to offer each patient a choice between imposing liability and waiving it (albeit in return for a higher price if liability is imposed). It shows that this form of contractual liability is not efficient because patients cannot use contractual liability to regulate two different types of investments in care – collective care and pre-contractual care -- as effectively as they could be regulated through a well-designed mandated liability rule. Accordingly, contractual liability is not obviously superior to malpractice reform as a way to regulate health care quality.

Voluntary contracting over liability is not an effective mechanism for regulating investments in safety that produce a collective benefit for patients by reducing the overall risk of error for all of the patients of that provider (hereinafter, “collective care”). Collective care includes investments that affect a physician’s capacity to deliver proper, error-free care, such as investments in the expertise needed to diagnose illnesses and assess treatments and investments in equipment that make error less likely. Patients do not have efficient incentives to contract into liability to regulate collective care because their individual decision to impose liability does not determine whether they obtain the benefit of collective care. Instead, a physician determines collective care based on her total expected liability for the whole group of patients affected by her decision, but then applies this care to benefit all her patients.15 Given this, each individual patient has an obvious incentive not to pay to impose liability because he can obtain the benefit of whatever care the physician provides without doing so, and can hope to “free-ride” on the liability

13 Contractual liability thus fails the test that some of its earliest proponents established for it. Robinson, supra note 5, at 183-184 (the case for contract depends on whether “in general, private parties are likely to achieve results that are at least as good and fair for themselves as would be achieved through paternalistic intervention).

14 In order to focus on the fundamental claim that contractual liability can be less valuable for patients than mandated liability, this article assumes, for argument's sake, that patients are informed about the costs and benefits of imposing liability.

15 This analysis assumes that physicians care about their patients and thus employ any collective investments that they have made to benefit all patients. Thus, for example, a physician that has investment months in learning about cancer treatments will employ this expertise for the benefit of all of her patients. She will not decide to use the greater knowledge only for patients who did impose liability and ignore her expertise when it comes to treating patients who waived liability. See Arlen & MacLeod, supra note 2 (discussing how physicians use expertise to affect care).
decisions of other patients. Contracting thus is likely to result in each patient waiving liability even though they each would be better off were liability imposed collectively.

Voluntary contracting over liability also is inefficient because it is not an effective mechanism for inducing providers to invest in care prior to meeting the patient (pre-contractual care) because high quality providers cannot use voluntary liability to signal their superior quality. Patients care about pre-contractual care because medical providers can improve the quality of care they deliver through ongoing investments in expertise, training and equipment made long before providing care to any given patient. Liability can be used to induce investments in quality prior to the contract if, but only if, high quality physicians can use a contractual offer to bear liability to signal their superior quality. Physicians cannot use liability to signal quality, however, if they contract over liability through contracts that guarantee patients the choice of whether to impose liability or not. High quality physicians cannot signal quality because, the moment the physician communicates the contract offer to the patient, the patient’s best option is to waive liability whenever the contract appears to be a contract offered by a high quality provider. Patients benefit from waiver because liability does not affect the provider’s expected pre-contractual investments in care. Actual pre-contractual care is fixed at this point. And the signal of quality also is fixed by the provider’s offer concerning the price charged for liability. Thus, a patient offered a choice between a liability contract and a no liability contract, can freely accept the lower cost “no liability” option without any impact on expected care. Patient’s ability to waive precludes high quality providers from using liability as a signal, however, because low quality providers can mimic the contracts of high quality providers, knowing that patients will waive liability. As a result, medical providers will be confident that future patients will waive liability designed to regulate these pre-contractual investments, and thus will under-invest in quality that benefits future patients if liability is governed by contract.

Next this article examines contracting over liability through entities, specifically Managed Care Organizations (MCOs), focusing on contracting over liability under which each MCO requires each provider to apply a uniform rule of liability (or no liability) to all of her patients. This form of collective contracting

16 Grossman, supra note 11.
17 See infra Section III.D (showing that contracting over liability does not produce a separating equilibrium in which high quality providers can use liability to signal quality, thereby providing them with an incentive to invest in pre-contractual care); see Jennifer Arlen & William Bunting, Signaling Quality to Heterogeneous Consumers Through Renegotiable Contractual Liability (draft, 2007) (providing a formal proof of this claim).
18 The present article defines an MCO as any insurer that attempts to influence the quality of care selected either directly, through utilization review, or indirectly, through financial incentives provided to physicians to cut costs (e.g., capitation).
19 This form of contracting would be subject to the same problems identified above if MCOs offer patients the right to contract with each provider either with liability or without it. Accordingly, this section examines MCO contractual liability that ensures collective contracting by physicians with
with commitment can best be accomplished through the creation of provider networks where each network is unified in its choice of liability rule.\(^{20}\)

This form of contractual liability also is inefficient, creating systematic incentives for those patients who do benefit from malpractice liability to contract into liability. The most important problem is that this form of contracting creates an “adverse selection” problem that encourages patients to waive liability even when they would be better off paying the price of liability to obtain the resulting higher quality. Patients will waive liability because MCOs contracting over liability will charge more for liability contracts than would be justified by a comparison of the cost of the higher quality of care offered. On average, chronically ill patients are more likely to be willing to pay for higher quality care than normal patients. This means that liability networks are likely to attract those who have higher health care costs than average – indeed, much higher costs. MCOs must price liability networks, therefore, to reflect the higher costs of their subscribers. This will drive ordinary patients out of the liability plan, even when the vast majority of patients would be willing to pay to impose liability were there no selection effects. Indeed, if the chronically ill cannot afford to pay the expected costs of their own care, then contracting over liability can result in a situation where all patients are priced out of the higher quality “liability” plan, and all elect to waive liability even though almost all would be better off were liability imposed by fiat.

Accordingly, contracting over liability does not lead to optimal decisions to impose liability. Instead it creates systematic incentives for patients to waive liability even when they are better off if were liability imposed. States interested in promoting patient welfare could better serve patients who benefit from liability by pursuing direct malpractice liability reform. Accordingly, when most patients could benefit from the use of liability to regulate quality, a state that is genuinely seeking to benefit its patients is likely to be better able to do so through malpractice reform than through the adoption of contractual liability. Contractual liability nevertheless is likely to be superior to malpractice liability when most patients are better off without liability. This justification for contracting over liability does not turn on contract’s ability to reform malpractice liability. It turns largely on its ability to constrict it.

This article is structured as follows. Section I summarizes the economic argument for malpractice liability and explains why reforms are needed to enhance its effectiveness. Section II presents the economic claim that malpractice reform is best accomplished by contract and identifies two forms of contractual liability favored by existing analyses. Section III examines the prerequisites for efficient contracting over liability and shows that voluntary contracting between patients and

\(^{20}\) These contracts would remedy the collective action problem by precluding free-riding: No patient could get the benefit of other patients’ liability contracts without contracting for liability themselves. It would also permit regulation of pre-contractual care by, in effect, allowing providers to shift the decision about whether to bear liability pre-contract, through their decision about what network to join in the future.
individual providers is not efficient. Section IV presents the argument that contractual liability is not efficient in the context of entity-level contracting over liability designed to produce collective contracting with commitment. Section V concludes, discussing the implications of this analysis for malpractice liability reform.

I. ECONOMIC ARGUMENT FOR MALPRACTICE LIABILITY AND ITS REFORM

This section summarizes the economic arguments for malpractice liability and its reform. Patients face a serious risk of being seriously injured or killed by their medical care unless medical providers invest adequately in the expertise, technology, staffing, and administrative systems that enables them to deliver good quality care. Medical providers will not invest adequately in reducing error, however, unless they expect to suffer a financial loss when they err. Malpractice liability can be used to provide effective incentives for providers to invest in care. In practice, however, malpractice liability is not as effective as it should be. Malpractice liability does not provide a strong enough incentive for medical providers to deter error largely because too few victims of malpractice sue. A related problem is that malpractice liability insurance premiums impose the same costs on both high and low quality physicians. These problems can best be solved by improving the system for sanctioning those in control of medical error, not by eliminating it. The following section examines whether contracting over liability is the best way to do this.

A. MEDICAL ERROR AND EXPERTISE

Each year, almost a hundred thousand people are killed and more than a million injured by medical error. Patients are injured and killed by medical errors committed both by individual physicians and hospitals. Physicians often harm patients through avoidable errors that result in incorrect diagnosis or the selection of the wrong treatment. Hospital patients face a risk of being seriously injured by the care they receive in the order of 4 to 17 percent. These errors cause enormous

21 *Institute of Medicine*, supra note 1.
22 One study found that only about 60% of patients with chronic disease receive the care indicated by medical literature; moreover, 20% of patients received care that is contra-indicated. Mark A. Schuster et al., *How Good Is the Quality of Health Care in the United States*, 76 MILLBANK Q. 517, 521 (1998). Another study found that patients on average received only 55 percent of recommended care. Studies of error by individual physicians include Elizabeth A. McGlynn et al., *The Quality of Health Care Delivered to Adults in the United States*, 348 NEW ENG. J. MED. 2635, 2641 (2003). For example, the study found that fewer than half of diabetics had their blood sugar levels measured regularly, even monitoring is important to prevent serious complications associated with diabetes (such as kidney failure, blindness and loss of limbs). *Id.*, at 2635, 2642. Only 45% of heart attack patients received medications that could reduce their risk of death by more than 20%. Only 38% of adults in the study were screened for colorectal cancer where routine screening and appropriate follow-ups could prevent an estimated 9600 deaths per year. Fewer than two-thirds of elderly Americans were vaccinated against pneumonia; such vaccinations could prevent about 10,000 deaths per year. *Id.*
23 Studies of medical care in hospitals reveals that 4 - 17 percent of hospital patients were victims of error that seriously injured them. The Harvard Medical Malpractice Study reviewed written
human suffering. They also drive up medical costs. One recent study estimated that
the average cost of negligent injury related costs in hospitals is almost $4,000 per
patient treated (1992 dollars); error costs in some hospitals are as high as $1X,000 [well
over $10,000] per admission.24

Studies reveal that much of this medical error could be avoided if medical
providers invested more in expertise, health care technology, supervision, training
and administrative systems designed to reduce the probability and consequences of
error in providing treatment. For example, many errors would have been prevented
had the physician obtained adequate knowledge, training, or skill to provide the
services required.25 Others would have been prevented by physicians using better
technology and administrative systems to prevent or detect error.26 Hospitals also
are ultimately responsible for many errors. Analysis of hospital errors reveals that
hospitals place patients at risk by failing to ensure adequate (i) training and
supervision of medical personnel (including residents and lower level personnel), (ii)

hospital records and found that 3.7% of the patients were the victim of an error that caused
significant harm. Paul C. Weiler, et al., A MEASURE OF MEDICAL MALPRACTICE: MEDICAL
INJURY, MALPRACTICE LITIGATION, AND PATIENT COMPENSATION, 42-44, 137-139 (1993). An on-
site observation study of medical error found 17.7% of patients were significantly harmed by medical
error; most of these errors were not recorded in the hospital records. Lori Andrews, Studying Medical
Error in Situ: Implications for Malpractice Law and Policy, 54 DEPAUL LAW REVIEW 357, 362 (2005). Other
studies finding error include Robert H. Brock, et al., Effectiveness of Nonemergency Care Via an Emergency
Room, 78 ANNALS INTERNALS MED. 333 (1973) (only 27% of one cohort of patients seeking care in an
emergency room received “minimally adequate medical care”); Knight Steel et al., Iatrogenic Illness on a
General medical Service at a University Hospital, 304 NEW ENG. J. MED. 638 (1981) (9% of 815 consecutive
patients had an iatrogenic event that was life threatening or produced disability). One study of
patients who died in hospitals found that 40% were misdiagnosed; one third would have been

24 [Precise number to be supplied once the embargo on the article is lifted]

A recent study of hospitals in Utah and Colorado found that on average, hospitals generated
$4,XXX in injury-related costs and $XXXX in negligent-injury-related costs for each patient treated
(in 1992 dollars). These costs varied considerably across hospitals; the best generated only $X0 per
patient admitted while the worst generate almost $1Y,000 per patient admission. Michelle Mello, et.
al., Economic Incentives for Patient Safety Improvement: An Analysis of Hospital Adverse Event Costs and Where
They Fall (unpublished manuscript, 2006) (draft on file with author). The Institute of Medicine
estimated that cost of preventable medical errors in hospitals alone is estimated to be $17-29 billion
per year. Institute of Medicine, supra note 1. [The numbers will be filled in when the embargo is lifted on this
article].

25 This includes inadequate investments by physicians in the expertise needed to correctly
diagnose patients and assess treatments; insufficient investment in health care technology (such as
prescription drug order entry systems) needed to reduce the risk of error; inadequate supervision of
less expert physicians; inadequate regulation of hours worked that results in patients receiving care
from physicians who are too tired to function optimally; insufficient staffing and poor administrative
systems within hospitals that increase the risk of error. For a detailed discussion of the empirical
literature on the causes of medical error see Arlen & MacLeod, supra note 2.

26 E.g., Weiler, et. al., supra note 23; Andrews, supra note 23, at 362-63; Andrews et al., supra
note 27; see also supra note 23. For a more detailed discussion of the evidence on medical error see
Arlen and MacLeod, supra note 2, at 1938-1939, 1950; see also Tom Baker, THE MEDICAL
investment in acquiring and maintaining technology needed to help prevent error, and (iii) administrative systems for coordinating patient care. Hospitals also potentially place patients at risk by rules requiring interns to work extended shifts, over long periods of time. These rules have been shown to increase the risk of medical error.


For example, hospitals could substantially improve their patients’ welfare by using computerized physician order entry systems to reduce the risk of drug errors; these errors frequently occur in hospitals, producing serious consequences in 1 of 100 cases. See Gawande, supra note 23, at 56, 63. Yet, only a small percentage of hospitals have adopted computerized physician order entry systems to prevent such errors. Michael L. Millenson, Moral Hazard vs. Real Hazard: Quality of Care Post-Arrow, 26 J. HEALTH POL’Y & L. 1359, 1360-61 (2000). Surgery patients also face a significant risk of injury from foreign objects left in them during surgery. Susan Burton, The Biggest Mistake of Their Lives, N.Y. Times, Mar. 16, 2003, §6 (Magazine), at 48 (foreign objects are left in at least 1500 surgery patients). Indeed, foreign objects are a sufficiently significant problem that gauze often contains iodine to make it detectable by X-ray post-surgery, should a patient develop an infection. See Barbara F. Ostrov & Julie S. Lyons, Surgical Errors Alleged at Stanford Hospital, SAN JOSE MERCURY NEWS, Apr. 30, 2002, at 1B. This problem could be reduced through better rigid adherence to sponge, materials, and instrument counts pre- and post-surgery. Patients also are harmed by broken equipment as a result of the hospital’s failure to establish an adequate system to ensure the reporting and repair of broken equipment. See Andrews, supra note 23.

28 Prior to 2003, work hour guidelines allowed interns in the United States to work 30 consecutive hours every other shift. Maximum shifts were recently reduced to 24 consecutive hours by the American Council for Graduate Medical Education (ACGME). Rivka Galchen, Medical Residents Are Not Allowed to Work More Than 80 Hours a Week, So Why is Everyone Complaining? WORK MAGAZINE . By contrast, the European Union limits the duration of shifts for all physicians to 13 hours by mandating a “minimum daily rest period” of 11 hours. Laura Berger, et. al., Extended Work Shifts and the Risk of Motor Vehicle Crashes Among Interns, 352 NEW ENGLAND JOURNAL OF MEDICINE 125 (2005). Evidence suggests that these long work shifts pose safety hazards for patients by increasing the risk of error. For example, one study found that residents on the traditional schedule (24 hour shifts every other shift) made 39.5% more “serious medical errors” than did residents on a lighter schedule. This included 22% more errors committed on the critical care units, 20.8% more medication errors, and 5.6% more serious diagnostic errors. Christopher P. Landrigan, et. al., Effect of Reducing Interns’ Work Hours on Serious Medical Errors in Intensive Care Units, 351 NEW ENG. J. MED. 1838 (2004). Another study found that pediatric residents on a “heavy call” schedule had 7% slower reaction times and committed 40% more errors than those on a light call schedule. The same study concluded that the post-call performance impairment for residents on a heavy call rotation was comparable to the impairment of someone with a blood alcohol content of 0.04-0.05% working a light call rotation. Residents had limited ability to diagnose their own impairment. J. Todd Arnedt, et. al., Neurobehavioral Performance of Residents After Heavy Night Call vs. After Alcohol Ingestion, 9 JAMA 1025 (2005); see also Drew Dawson & Kathryn Reid, Fatigue, Alcohol and Performance Impairment, 388 NATURE 235, 236 (1997) (after 24 hours of wakefulness, cognitive psychomotor performance decreased to a level equivalent to a person with a blood alcohol content of 0.10%). These extended hours also pose a risk for interns. Evidence finds that physicians who have worked an extended shift
The central challenge is how best to induce physicians, hospitals and others who influence care to make the investments in safety that patients want them to—which is to say, all investments that are cost-effective given patients’ willingness to pay for health care. These investments include not only direct investments in selecting the right treatment, but also cost-effective investments in providers’ capacity to provide appropriate care. These investments in capacity to provide care (“expertise”) include those made prior to contracting with any given patient (pre-contract) as well as those made afterwards (post-contract).

**B. MALPRACTICE LIABILITY AND DETERRENCE**

Medical caregivers will not invest in optimal care unless they face an effective threat of liability for medical error. Sanctions are needed because absent sanctions medical providers under-invest in patient safety. Medical providers pay directly for investments in patient safety, such as expertise, supervision, staffing and equipment. They thus will seek to minimize these costs unless these investments benefit them. Medical providers would benefit from such investments, even without sanctions, if patients observed provider quality and were able to pay higher quality providers are at a significantly greater risk of injuring themselves on the job and of being involved in a motor vehicle crash returning from work. See Najib T. Ayas, et. al.,* Extended Work Duration and the Risk of Self-reported Percutaneous Injuries in Interns*, 296 JAMA 1055 (2006); Berger, et. al, *supra* (finding significantly higher rate of auto accidents by interns working extended shifts). The evidence that exhaustion leads to error may provide one explanation for the finding of Sloan, et. al, that physicians who work longer hours have more medical malpractice claims. Frank A. Sloan, *et. al., Medical Malpractice Experience of Physicians: Predictable or Haphazard?* 262 J. AMER. MED. ASSOC. 3291 (1989).

An investment in quality is cost-effective if the cost of the measure is less than (or equal to) the benefit of the resulting improvement in patient outcomes (based on the value to the patient of his own health). Patients want medical providers to deliver cost-effective care, and not care of the highest quality, because patients must pay for the expected cost of the medical care they receive. Thus, patients are best off when medical providers invest in all quality measures that are cost-effective, given the patient’s willingness to pay for health. Medical providers are better off because patients will pay more for care that they expect to be of higher quality. See Arlen & MacLeod, *supra* note 2, at 1948-1954 (discussing this in more detail).

See *infra* note 87 (discussing the importance of post-contractual expertise given the dynamic nature of health care).

Arlen & MacLeod, *supra* note 2. Physicians will not invest adequately in error-reduction even when they are compassionate and suffer tremendous mental distress when they harm a patient. The physician will invest in the level of error-reduction that is cost-effective given the cost to him of error – i.e., his distress. This investment nevertheless will be too low, however, relative to the investment that maximizes patient welfare, so long as the amount that the physician is willing to pay out of her own pocket to avoid killing or permanently injuring a patient is less than the amount the patient would be willing to pay himself to avoid being killed or permanently injured. See Jennifer Arlen and W. Bentley MacLeod, *Torts, Expertise and Authority: Liability of Physicians and Managed Care Organizations*, 36 RAND J. ECON. 494 (2005)(showing that even compassionate physicians under-invest in expertise absent liability for medical error). As for hospitals, most hospitals are, in the end, governed by market forces that pressure them to evaluate investments based on cost-effectiveness to the hospital.
more than lower quality ones. But this is not the case because the quality of care medical providers deliver does not have a sufficiently strong effect on their revenues.

Patients generally are not willing to pay more to higher quality providers because they cannot determine who the best providers are. Moreover, many if not most patients under-estimate the significance of quality differences between providers, believing little significant variation exists. Providers’ revenues also do not adjust because they generally are determined by contracts with insurers who pay on a per-patient or per-treatment basis, without adjusting for the expected quality of

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32 Notwithstanding the enormous differences in the expected quality of care delivered, patient surveys suggest that most patients believe that the regulation of health care is sufficiently strong to eliminate any significant difference in physician or hospital quality. Jacquelyn J. Jewett & Judith H. Hibbard, *Comprehension of Quality Care Indicators: Differences Among Privately Insured, Publicly Insured, and Uninsured*, 18 HEALTH CARE FIN. REV. 75, 90 (Fall 1996). For example, a study by the Kaiser Family Foundation found that in 1996 only 28% of patients believed there were big differences in the quality of care delivered by specialists; by contrast 50% of respondents believed there were either no differences or small differences in the quality of specialists’ care. As late as 2000, still only 47% believed that there were big differences in the quality of care, while 43% believed that there were no or small differences. *Kaiser Family Found. & AHRQ, National Survey on Americans as Health Care Consumers: An Update on the Role of Quality Information*, SUMMARY 12, 15 (Dec. 2000).

These results contrast sharply with the data showing that physicians and hospitals vary substantially in the quality of care delivered. Patricia Danzon, *Liability for Malpractice*, Chap. 26, in A.J. Culyers & J.P. Newhouse, ed., *Handbook of Health Economics* Vol 1, at 1353 (2000) (The Harvard Medical study found that although on average the percentage of adverse events in hospitals due to negligence was 25% there was a wide range; some hospitals had a negligent error rate of only 1 percent while others had a negligent error rate of 60 percent. Not all the differences were attributable to differences in illnesses and patient populations); Mello, et. al., *supra* note 24 (finding that the error cost generated by hospitals in Utah and Colorado varied widely, with average in injury-related costs of ___ and ___ in negligent-injury-related costs for each patient treated (in 1992 dollars), with the best generating only $X0 per patient admitted while the worst generate almost $1Z,000 per patient admission). (fill in numbers once journal embargo lifted); see also See Mark R. Chassin et al., *Benefits and Hazards of Reporting Medical Outcomes Publicly*, 334 NEW ENG. J. MED. 394, 394-97 (1996) (analysis of quality of care provided to patients undergoing coronary artery bypass graft surgery showed significant variation in mortality across both physicians and hospitals, even after controlling for various risk factors. Public reporting of these findings did not alter patients’ choice of provider). Other studies have shown that a relatively small number of physicians account for a larger number of claims than would be expected if physicians’ claim risk was uniformly distributed. E.g., Frank A. Sloan, *et. al., Medical Malpractice Experience of Physicians: Predictable or Haphazard?* 262 J. AMER. MED. ASSOC. 3291 (1989).

Providers also cannot obtain the full value of investments in care because they cannot guarantee that they will deliver the quality of care promised because quality often depends on non-contractable actions to be taken post-contract, after the price has been set. Patients and providers cannot agree to contracts where the price depends on post-contractual quality because most of these future investments are non-contractible. See Arlen & MacLeod, *supra* note 2, at 1961-1979 (showing that contracts cannot regulate most post-contractual investments in medical quality). Accordingly, patients have no ability to ensure that providers in fact make these investments; they thus will not be willing to pay the full value of such investments should they be made. See the prior paragraph (discussing information problems that would eliminate providers’ ability to use reputation to commit them to undertaking optimal investments in quality).
the services delivered. Thus, market forces alone do not encourage optimal investments in safety.

Medical providers can be induced to invest optimally in patient care if they are subject to effective sanctions for injuries resulting from medical error. Medical providers subject to liability for medical error invest in patient safety in order to reduce their expected liability. Liability thus can ensure that providers benefit from investments that reduce error even when patients cannot observe them and providers cannot charge for them.

Liability for the provision of negligent medical treatment deters providers from knowingly providing inadequate treatment. It also can reduce accidental medical error because it provides medical caregivers incentives to invest in their capacity to provide good quality care. Medical providers required to pay for injuries resulting from poor quality care will invest in measures to reduce the risk that they will err. These measures include investments made both pre-contract and post-contract in the expertise needed to diagnose patients properly and to select appropriate treatment and in health information technology and administrative systems that reduce the risk of error during treatment.

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33 See Arlen & MacLeod, supra note 2, 1948-1953 (explaining why this is the test for optimal care). Medical providers generally are compensated in one of two ways (or a combination thereof): through a flat “capitated” fee per patient served or on the basis of treatment actually provided. Neither of these reimbursement methods adjust the payment to reflect quality differences, in most cases. Thus, investments providers make in error-reduction come directly out of their profits. Cf. See Kristin Madison, Regulating Health Care Quality in the Information Age (unpublished manuscript, 2006) (discussing some fledgling efforts in a few areas to make some adjustment for quality differences in paying medical providers).

34 This section can only briefly summarize the economic justification for malpractice liability. For a more detailed analysis see Arlen & MacLeod, supra note 2, at 1961-1987 (negligence liability can be used to induce providers to deliver the level of quality that providers and patients would contract for in a world of complete contracts with perfect information); Arlen & MacLeod supra note 31 (presenting a formal model of the role of malpractice liability when physicians can err either through the knowing provision of bad treatment or accidentally, with the probability of accidental error being a function of investments in expertise).

An interesting recent study provides evidence consistent with the view that financial incentives are important, even when providers voluntarily report some information about the quality of care. Peter K. Lindenauer, et. al., Public Reporting and Pay for Performance in Hospital Quality Improvement, 356 New Eng. J. Med. 486 (2007) (finding that pay-for-performance hospitals show greater improvements in quality than the control group that simply voluntarily report information about quality).

35 See infra Section III.A. Patients’ health depends on the use of liability to induce medical providers to make two different types of investments in patients’ safety. First, patients need medical providers to invest optimally, prior to providing any care, in expertise, health care technology, staffing and administrative systems are designed to protect future patients from error (hereinafter, pre-contractual care). Second, patients also need medical providers to undertake investments for their benefit after agreeing to deliver care (post-contractual). These post-contractual investments include investments in expertise, testing, improving administrative systems, supervision, and care in performing procedures. For a discussion of post-contractual care see infra note 87 and Arlen & MacLeod, supra note 2.
Accordingly, when properly designed, malpractice liability can enhance the welfare of patients and providers alike by enabling patients to obtain, and providers to charge for, the quality of care that maximizes their welfare.\(^{36}\) While this mechanism is not free, the total costs of liability are only a small portion of total health care costs. Estimates put the current cost of malpractice liability at about 1-2 percent of total health care spending.\(^ {37}\) This expenditure is worthwhile if malpractice liability induces safety improvements that confer a benefit that is at least this great.

### C. NEED FOR REFORM

Liability for medical negligence, thus, is an important part of our overall system for regulating health care quality. Yet the current system is not living up to its full potential. Although it appears that malpractice liability does have some positive effect on medical quality,\(^ {38}\) there is little doubt that the current system could deter medical error more effectively. The primary problems that undermine the

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\(^{36}\) For a formal proof of this proposition see Arlen & MacLeod, supra note 31.

\(^{37}\) Baker, supra note 26, at 40; see Danzon, supra note 32, at 1343 (“Malpractice liability insurance premiums account for roughly one percent of total health care spending, hence are not a significant contributor to the level of growth of health care costs.”). Indeed, after reviewing the various contributing factors to health care costs, Paul Weiler concluded that “the idea that containing medical malpractice liability costs will make any appreciable dent in health care costs is absurd.” Paul Weiler, The Case for No-Fault Medical Liability, 52 MD. L. REV. 908, 909 (2003).

For a discussion of evidence showing that malpractice damages are not spiraling out of control once awards adjusted to reflect the medical inflation see infra note 53.

\(^{38}\) Danzon, supra note 32, at 1341 (“The limited empirical evidence of provider response to liability and the deterrent effect of claims suggests – but cannot prove – that the net benefits of the malpractice system may plausibly be positive); Mello & Brennan, supra note 5 (malpractice liability appears to improve hospitals’ safety records, but the evidence is limited); see also Janet Currie & W. Bentley MacLeod, First Do No Harm? Tort Reform and Birth Outcomes, National Bureau of Economic Research Working Paper No. 12478 (August, 2006) (finding that caps on damages increase complications in labor and delivery, consistent with the hypothesis that liability induces more care); cf. BAKER, supra note 26, at Chapter 6 (discussing doubts about the general applicability of studies claiming to show that liability induces defensive medicine).

There also is anecdotal evidence of the beneficial incentive effects of malpractice liability. The best known example of this involves the anesthesiologists. In the 1980s, anesthesiologists faced some of the highest malpractice rates in the country. The American Society of Anesthesiologists responded by conducting an extensive study of the causes of medical error; they then followed up with reforms to reduce patient deaths. Death rates from anesthesia plummeted; anesthesiologist now enjoy among the lowest medical malpractice insurance rates. Baker, supra note 26, at 108-110 (by 2002, death rates from anesthesia plummeted to 4 in 1 million patients; average malpractice insurance rates fell to $18,000). Similarly, case studies of hospitals reveal numerous situations where malpractice liability appears to have encouraged hospitals alter their practices to save lives. See id., at 99-105 (discussing examples where hospitals reformed poor practices in response to the threat of malpractice liability). For example, New York introduced an important live-saving regulation preventing hospitals from scheduling residents for shifts longer than 24 hours was adopted in 1989 in response to the death of a young woman, Libby Zion, in a New York teaching hospital apparently as the result of errors stemming from physician exhaustion. Galchen, supra note 28.
ability of tort liability to improve medical quality are that (1) negligent medical providers face too small a risk of sanction because most patients do not sue (and those that do often do not recover); providers also are protected by liability insurance and that (2) entities that control quality do not face adequate tort liability for their actions. These problems would be solved by enhanced tort liability, not restricted liability.

1. Under-deterrence
First, malpractice liability currently does not adequately sanction medical providers who provide suboptimal care. Malpractice liability does not provide a sufficiently large incentive for medical providers to reduce error for three reasons. First, providers who err are rarely sued. Patients injured by their medical care rarely sue, even when they were victims of medical error. Indeed, evidence suggests that patients who are victims of error sue only 10-12% of the time. Second, patients

39 Other problems exist, including that the current standard of care is not optimal. First, although optimal regulation of health care requires that the standard of care be set equal to the treatment that provides the maximum cost-effective level of quality, Arlen & MacLeod, supra note 31; Danzon, supra note 32, 1347, the current standard of care is based on medical custom. During the dominance of fee-for-service insurance, custom evolved to give patients the most effective care, without regard for cost. Danzon, supra note 32, at 1347-48. Moreover, custom is inferior as a standard to one based on evidence-based medicine because doctors' views of medical custom vary and custom is not always consistent with best medical practices. See Mello & Brennan, supra note 5.

40 Low-claiming and recovery rates not only undercut incentives, they also undermine malpractice liability's effectiveness as a mechanism for compensating victims of negligence. Beyond this, many patients' expected recovery is less than their full loss (as measured by willingness to pay) because damage rules do not ensure adequate recovery for many patients. See Jennifer Arlen, Tort Damages: A Survey, in ENCYCLOPEDIA OF LAW & ECONOMICS (Boudewijn Bouckaert and Gerrit De Geest, ed., 2000)(explaining why rules governing damages for death and injury are not efficient). In addition, liability insurance policy limits appear to effectively cap patients' recovery. Kathryn Zeiler et al., Physicians' Insurance Limits and Malpractice Payments: Evidence from Texas Closed Claims, 1990-2003, J. LEGAL STUD. (forthcoming); see also Thomas Baker, Blood Money, New Money and the Moral Economy of Tort Law in Action, 35 LAW & SOC'Y REV. 275 (2001) (lawyer surveys suggest that plaintiffs' lawyers are reluctant to go after physicians' personal assets if insurance coverage is insufficient). Finally, plaintiffs lose as much as 40% of any recovery received to litigation costs. This article does not focus on compensation problems because it appears that malpractice liability is a potentially effective mechanism for deterring error but is not an effective mechanism for compensating those insured by medical error. For a discussion of the issues surrounded with adopting a no-fault system designed to compensate victims of error see, e.g., PAUL C. WEILER, MEDICAL MALPRACTICE ON TRIAL (1991)(proposing such a system); Paul Weiler, Reforming Medical Malpractice Liability in a Radically Moderate – and Ethical – Fashion, 54 DePaul L. Rev. 205 (2005) (advocating no-fault malpractice liability accompanied by damage schedules).

41 See David Studdert, et. al., Claims, Errors, and Compensation Payments in Medical Malpractice Litigation, 354 New Eng. J. Med. 2024 (2006) (concluding that the evidence suggests that malpractice victims cannot accurately determine the validity of their cases at the time they file). In an early study out of California, Patricia Danzon found that only 10 percent of negligent adverse events filed a medical malpractice case. Only 40% of these resulted in payment. PATRICIA M. DANZON, MEDICAL MALPRACTICE: THEORY, EVIDENCE AND PUBLIC POLICY 23-24 (1985). The Harvard Medical Practice study found that only one in eight (12.5%) of potentially valid claims of
who do sue regularly lose, even when their claims are legitimate. These two problems combine to ensure that a negligent provider faces only a 9% chance of being held liable, on average, should she err. This is too low to induce optimal investments in safety.

Physicians’ incentives to invest in care are further muted by the current structure of physician malpractice liability insurance. Almost all physicians carry medical malpractice liability insurance to protect them from liability for medical negligence. Individual physician’s malpractice liability insurance distorts incentives to invest in care because it has an unusual premium structure: premiums generally are not “experience-rated.” This means that an insurer willing to insure a physician does not adjust the premium to reflect either the physicians’ claims history or her patient outcomes. Thus, physicians who under-invest in safety pay the same premiums as medical malpractice was actually filed, and that in cases of serious injuries, only approximately one claim was filed for every three serious injuries. Weiler, Medical Malpractice on Trial, supra note 40, at 12-13. A follow-up study out of Harvard on claiming and recovery rates in Utah and Colorado found that only 2.5% of patients injured due to medical error filed a malpractice suit. David M. Studdert, et al., Negligent Care and Malpractice Claiming Behavior in Utah and Colorado, 38 Med. Care 250, 253 (2000). A subsequent Harvard study on recovery accuracy in Utah and Colorado claims found that 27 percent of the victims of error who did sue did not recover. Studdert et al., supra note 41, at 2038. Victims of error are particularly likely to be denied recovery if they proceed to trial. David Studdert and Michelle Mello, When Tort Resolution are ‘Wrong’: Predictors of Discordant Outcomes in Medical Malpractice Litigation, Journal of Legal Studies (forthcoming). A study of medical error at a Chicago hospital found that only 13 of the 175 patients who were the victims of medical error that caused serious injury filed suit. See Andrews, supra note 27, at 312; Krizek, supra note 27, at 1360-61.

43 Low litigation rates cannot simply be addressed by supra-compensatory damages. First, it appears that incentives are more effective when injurers face a reasonably high probability of being sanctioned. See Mello & Brennan, supra note 5, at 1624. Thus, high sanctions are not a perfect substitute for a high probability of liability. Second, low litigation rates appear to be one of the reasons that medical malpractice liability insurance is not experience rated. This is itself one of the major problems facing the tort system. Mello & Brennan, supra note 5 (discussing the inter-relationship between low litigation rates and the lack of experience-rating).

44 Doctors buy insurance even though most victims of negligence do not sue because (i) they are risk averse and malpractice damages can be high and (ii) they often are required to carry insurance by either the state in which they work or the hospitals or insurers with whom they are affiliated. The protection afforded by this insurance, moreover, appears to exceed other forms of insurance, and largely insulates physicians from the direct costs associated with suits against them. First, liability insurance often (although not always) covers the entire amount covered by the policy, without a deductible. Danzon, supra note 32, at 1361; see Zeiler, et. al., supra note 40 (finding policies with deductibles). In addition, there is evidence that malpractice liability insurance may provide protections that go beyond the stated policy limits. Evidence from Texas suggests that patients’ recoveries almost never exceed medical providers’ policy limits; when it does, the insurer, and not the provider, normally pays the excess. Kathryn Zeiler et al., Physicians’ Insurance Limits and Malpractice Payments: Evidence from Texas Closed Claims, 1990-2003, J. Legal Stud. (forthcoming 2007).

45 Premiums are adjusted to reflect a physician’s specialty, time in practice and location, but not her claims experience. Danzon, supra note 32, at 1360; see Mello & Brennan, supra note 5, at 1616-1617. Of course, physicians with excessive claims rates may be unable to obtain conventional liability insurance. Yet, nevertheless, providers able to obtain liability insurance do not face a threat of higher premiums should they be sued. See infra note 47.
those who invest optimally in safety.46 Since malpractice liability affects doctors primarily through the premiums they pay, this premium structure helps insulate low quality doctors from the costs of their medical errors.47 It thus undermines the deterrence impact of tort liability.48

46 Danzon, supra note 32, at 1360-1362. This premium structure has many potential causes. One likely cause is under-claiming. A malpractice claim is not a particularly good signal of physician quality because so few victims of medical error sue – and so few physicians are sued -- that physicians who are sued and those who are not may be of similar quality. Mello & Brennan, supra note 5, at 1616-1617. Malpractice insurers might be more willing to experience-rate if claiming rates could be improved. Insurers might still not experience rate because many are not independent of the doctors they insure. Many malpractice liability insurers have state and local medical society sponsorship and often retain close financial and managerial ties to these entities. William Sage, Medical Malpractice Insurance and the Emperor’s Clothes, 54 DEPAUL L. REV. 463, 456-66 (2005). Nevertheless, it appears that increased claiming would put market pressures on insurers to experience rate.

47 See supra note 44 (discussing evidence that providers rarely pay out of pocket). This is not to say that malpractice liability has no effect on low quality physicians. There is some reputation effect. Other physicians in the same area may learn about successful malpractice suits and may be less willing to refer patients – although the effect of this on a physician’s revenues may be muted to the degree to which MCOs affect the selection of providers. E.g., Gary M. Fournier & Melayne Morgan McInnes, The Effects of Managed Care on Medical Referrals and the Quality of Specialty Care, J. INDUS. ECON. 457-58, 467 (2002) (finding evidence that there is more quality screening of specialists under the physician-controlled referral system that prevails under fee-for-service insurance than under MCO insurance, where patients are restricted to MCO-favored physicians); see also Lars C. Erickson et al., The Relationship Between Managed Care Insurance and Use of Lower-Mortality Hospitals for CABG Surgery, 283 JAMA 1976, 1976, 1978 (2000) (finding that patients with fee-for-service insurance are more likely to get coronary artery bypass graft surgery at lower mortality hospitals in New York State than those insured through MCOs).

In addition, a successful claim may result in the physician getting listed on the federally-maintained National Practitioner’s Data Base (NPDB), if the physician personally pays the claim (as opposed to payment being made by the hospital). This may affect future employment since this data base is searchable by hospitals and other health care professionals. But cf. Robert Pear, Inept Physicians Are Rarely Listed As Law Requires, N.Y. TIMES, May 29, 2001, at A1 (reporting that 84% percent of HMOs and 60% of hospitals reportedly did not report to government any “adverse action” against any affiliated physician for incompetence or misconduct over ten-year period and that HMOs reported total of only 715 “adverse actions” in ten years).

48 Physicians with above average quality are among the main victims of non-experience-rated malpractice liability insurance because this premium structure forces them to pay for expected claims that they are unlikely to experience. Nevertheless, the organized physicians’ organizations are the central opponents of experience-rating. Mark Geistfeld, Malpractice Insurance and the (Il)Legitimate Interests of the Medical Profession in Tort Reform, 54 DePaul L. Rev. 439, 455-56 (2005) (discussing one set of reasons why physicians may oppose experience-rating).

Good physicians also bear too great a burden because they cannot avoid a risk of being sued by taking optimal care. Although physicians who deliver good care end up paying damages, they are some times sued, largely because injured patients must file their claims before they have obtained sufficient information to determine if there was error. Studdert et al., supra note 41, at 2028, 2030-31 (37% of claims filed did not involve medical error; 72% of these bad claims were dismissed without recovery, but only after many years). Analysis of closed claims suggests that improper claims are not frivolous when filed, but rather are filed because the patient and her lawyer do not have sufficient evidence to determine that error did not occur. Id. Proposals to provide victims of iatrogenic injuries with immediate and detailed information about the causes of their injuries might well both improve
2. Insulated Entities

Another fundamental problem is that the current malpractice system targets liability at individuals who cause error, instead of institutions, such as hospitals and MCOs. Regulating medical entities is important because studies suggest that most errors are the result of inadequate investments in supervision, equipment, and administrative systems that are under the ultimate control of medical entities, such as hospitals and MCOs. Medical malpractice liability laws do not adequately regulate institutions because the fundamental test for medical negligence focuses on whether a given individual provider delivered substandard care; it does not focus adequate attention on whether a medical entity, such as a hospital, failed to take actions that would have made error less likely.

Moreover, the current system largely insulates some medical entities, such as MCOs, from the threat of malpractice liability even though they frequently intervene in ways that affect the probability of medical error. Federal law insulates MCOs from liability for their own negligence, as when they use utilization review to provide substandard care. MCOs also generally are not liable for harms resulting from the negligence of affiliated physicians because entities generally are liable only for employees and almost all MCOs hire physicians as independent contractors, not employees.

Hospitals also often escape liability for physician negligence by hiring physicians (and indeed entire Emergency Rooms) as independent contractors. Hospital liability is a potentially important mechanism for targeting liability at providers’ who err because hospitals generally do bear their liability costs. Many hospitals self-insure against liability; most of those that do purchase liability insurance obtain liability insurance that is experience-rated. Thus, hospital liability

the frequency and accuracy of patient claiming.

49 E.g., Mello & Brennan, supra note 5 (medical error generally is best controlled by institutions); Arlen & MacLeod, supra note 2 (same). See supra Section I.A (discussing the causes of medical error).

50 Mello & Brennan, supra note 5, at 1627; see Arlen & MacLeod, supra note 2 (discussing the importance of systemic error and the need to target liability at entities capable of reducing such errors).

51 MCOs affect the quality of care delivered both directly, such as through utilization review, and indirectly, through incentives designed to alter the quality of care that providers deliver. Arlen & MacLeod, supra note 2 (discussing the effect of utilization review and incentive contracts on the quality of care delivered); see Kathryn Zeiler, (discussing how MCO’s capitation contracts alter incentives to take care); Dranove & Spier (utilization review). A combination of state and federal law largely insulates MCOs from the risk of malpractice liability, however, for either their own actions or for negligence by their affiliated physicians. Arlen & MacLeod, supra note 2. Hospitals also are shielded from full liability for their actions by state laws that either (1) hold that hospital vicarious liability does not extend to anesthesiologists, radiologists, separating incorporated emergency rooms, and other medical providers who have a claim to act as independent contractors or (2) that grant charitable institutions (including hospitals) substantial protection from tort suits.

52 E.g., Mello & Brenna, supra note 5, at 1617-1618.
could be used to induce better screening and regulation of providers by hospitals, in addition to direct investments in quality.

3. Accuracy of Litigation

Although the system needs reform, it appears that properly reformed tort liability does can deter medical error, notwithstanding its reliance on the jury. Specifically, the existing evidence on litigation accuracy suggests that the litigation system is sufficiently accurate to function as an effective mechanism for inducing medical providers to invest in patient safety, absent other impediments to its effectiveness. Numerous studies of both jury verdicts and settlements reveal that the vast majority of patients who recover from physicians in malpractice cases apparently were the victims of medical error. Indeed, the most recent study of found that malpractice liability is imposed correctly 82 percent of the time. Thus, liability appears to be imposed correctly given the civil burden of proof. Moreover, this study found that, on average, the litigation errors that occur harm patients more than physicians: 60 percent of the improperly resolved claims denied recovery to a patient who, the evidence suggests, was injured by medical error; less than 40 percent of the improperly resolved claims imposed liability on a physician who provided appropriate care. Pro-physician errors were particularly likely when the case was tried before a jury. Other studies have confirmed the findings that the vast majority of

53 Thus, the problems with the system do not include the opt-repeated claim that liability outcomes are random. See Richard Epstein & Alan Sykes, The Assault on Managed Care: Vicarious Liability, ERISA Preemption, and Class Actions, 30 J. LEGAL STUD. 625, 642 (2001) (malpractice liability, while desirable in theory, may not be beneficial in practice because it is imposed randomly); see infra note 57; see also supra note 38 (discussing evidence that liability improves patient outcomes).

In addition, recent empirical evidence calls into question another oft-repeated attack on the tort system: that malpractice awards are spiraling out of control because juries favor patients. First, recent empirical analysis of jury verdicts suggests that juries do not favor patients, and indeed errors by juries tend to favor physicians. See supra note 42 and infra text accompanying note 55. Second, a detailed analysis of settlements and jury verdicts in Texas found that average damages have increased in nominal dollars, but this increase appears to be attributable primarily to medical inflation. Once medical inflation is controlled for, damages evidence an annual increase of only 0.1-0.5 % per year (with these findings being either insignificant or marginally significant). Bernard Black, et al., Stability Not Crisis: Medical Malpractice Outcomes in Texas, 1988-2002, 2 J. EMPIRICAL LEGAL STUD. 207, 209 (2005). This study also found that, adjusting for population growth, the total number of malpractice claims closed by insurance companies, as well as the total number of claimed with payouts of at least $25,000, was stable over the period of 1988 to 1992. Id., at 209.

The mean payout during this period was about $528,000 and the median was about $200,000 in 2002 dollars. Id., at 209; see also Studdert, et al., supra note 41, at 2028 (finding median damages in cases where the doctor did err of $521,560 based on data from Utah and Colorado).

54 Studdert, et al., supra note 41 (a review of in which a physician was required to pay damages to a patient through settlement or verdict found that the physician probably did err in 82 percent of these cases). Although this study could be challenged for permitting reviewers to see the entire file (including the outcome), other studies also have found that patients who recover generally are the victim of medical error. See infra note 56.

55 Studdert, et al, supra note 41, at 2028.
patients who receive payments through jury verdicts and settlements are the victims of error.\textsuperscript{56} Thus, the “frivolous litigation” argument does not support the view that the best outcome of malpractice liability reform would be to eliminate its use.\textsuperscript{57}

D. REFORMING THE SYSTEM

The evidence suggests that malpractice liability should be reformed to enhance the deterrence effect of liability by increasing malpractice victims’ expected frequency of claiming and recovery\textsuperscript{58} and by ensuring the medical entities have

\textsuperscript{56} These studies also find that, conditional on recovery, expected damages are higher when the physician erred. E.g., Henry S. Farber & Michelle J. White, \textit{A Comparison of Formal and Informal Dispute Resolution in Medical Malpractice}, 23 J. Legal Stud. 777, 799 (1994) (“Controlling for severity, settlements in cases with bad care are estimated to be almost four times larger than in cases with good care.”); Henry S. Farber & Michelle J. White, \textit{Medical Malpractice: An Empirical Examination of the Litigation Process}, 22 RAND J. ECON. 199, 204-05 (1991) (presenting “strong evidence that negligence matters in the determination of liability.”); see also Patricia Danzon & Lee Lillard, \textit{Settlement Out of Court: The Disposition of Medical Malpractice Claims}, 12 J. LEGAL STUD. 345, 347 (1983) (finding that criticisms of negligence liability as being random are unfounded; legal standards appear to influence court verdicts directly and settlements indirectly); Michelle J. White, \textit{The Value of Liability in Medical Malpractice}, 13 HEALTH AFF. 75, 77 (1994) (discussing evidence that claims involving negligence resulted in average awards of $205,000, compared with $41,800 for those with no negligence). A study based on on-site evaluation of medical error found that patients who sue generally are indeed the victims of medical error. Andrews, supra note 23, at 312 (discussing that eleven out of thirteen tort suits filed had merit, in that they were brought for treatment-induced adverse event); Krizek, supra note 23, at 1361. Other evidence that malpractice liability is not random is found in studies showing that, conditional on medical specialty, a relatively small number of physicians account for a larger number of claims than would be expected if either physicians’ claim risk were uniform or malpractice liability were random. E.g., Frank A. Sloan, et al., \textit{Medical Malpractice Experience of Physicians: Predictable or Haphazard?} 262 J. AMER. MED. ASSOC. 3291 (1989).

\textsuperscript{57} Those who claim tort liability is imposed randomly often cite the Harvard Medical Study. See Epstein & Sykes, supra note 53, at 642 (citing to Harvard Medical Study as evidence that courts often focus on cases where physician did nothing wrong). The Harvard Study is an excellent study of medical error. Yet it included so few observations in which a suit was filed that its data cannot be used to draw any statistically significant conclusions regarding the tort system. See Patricia M. Danzon, \textit{Medical Malpractice}, in 2 THE NEW PALGRAVE DICTIONARY OF ECONOMICS AND THE LAW 624, 626 (Peter Newman ed., 1998). Moreover, the design of the Harvard Study can be expected to result in claims being coded as “no error” claims, even though in fact the physician did err. First, the Harvard Study had two physicians review each claim. Each claim was coded as involving error only if both agreed that error had occurred. This means that if one physician thought there was error, the suit still would be coded as a “no error” case. Moreover, this study evaluated the merits of each claim using written hospital medical records. However, written hospital records do not document most observed medical error. See supra note 36. Thus many of the claims the Harvard study determined to be invalid might, in fact, have been valid.

This is not to say that no physicians suffer a systematic risk of litigation error. It appears that pro-patient errors may be more common in some types of cases, such as those most likely to involve obstetricians. See David Studdert and Michelle Mello, \textit{When Tort Resolution are “Wrong”: Predictors of Discordant Outcomes in Medical Malpractice Litigation}, J. LEGAL STUD. (forthcoming) (suggesting that pro-plaintiff errors are more likely when plaintiffs are infants).

\textsuperscript{58} Increased claiming would likely not only improve deterrence but also would promote
adequate incentives to invest in patient safety. The question is what is the best way to achieve these needed reforms?

Currently, there are two basic answers to this question. The first is to retain malpractice liability while adopting reforms to enhance its effectiveness. The second is to replace traditional malpractice liability with a system that allows liability rules to be determined by contracting between medical providers and their patients.

Proponents of malpractice liability reform have offered proposals to substantially improve the effectiveness of tort liability. Leading proposals include proposals to shift the initial burden of malpractice liability from individual providers to the medical entities who directly affect care, such as MCOs and hospitals. Although the issue is beyond the scope of this article, good arguments exist that entity-level liability would be able to regulate medical quality much more effectively than can individual liability. Other proposals include those to give injured patients more information about the cause of their injuries.

Insurance reform, permitting experience-rating of insurance policies. For a discussion of the no-experience-rating problem and its solution, see, e.g., Geistfeld, supra note 48, at 440; Mello & Brennan, supra note 5, at 1616-1617; Sage, supra note 46.

Entity-level liability is superior to individual liability because much (if not most) medical error appears to result from decisions made by entities that affect physicians’ ability to provide good quality care. Moreover, entity-level liability would diminish (if not eliminate) the malpractice liability insurance problem because entities either do not insure or purchase insurance that is experience-rated. Finally, it would better regulate individual physicians by giving entities a direct financial incentive to reduce their error rates through either monitoring or sanctions. Entities, moreover, would have both the incentive and the capacity to design a system that avoids the problems caused by individual malpractice liability insurance. For a thorough discussion of the advantages of entity-level liability see, e.g., Arlen & MacLeod, supra note 2 (MCO liability for malpractice); Abraham & Weiler, supra note 5 (hospital level liability for malpractice); Danzon, supra note 5 (MCO liability for malpractice); Mello & Brennan, supra note 5 (hospital level liability for malpractice); Havighurst, Vicarious Liability, supra note 5 (supporting contractual enterprise liability for MCOs); Havighurst, Health Care Choices, supra note 5, at 171 (same); see also Kristen Madison, ERISA and Liability for Provision of Medical Information, 84 N. CA. L. REV. 471 (2006) (proposing a disclosure-based form of liability for MCOs intended to circumvent the impediment to MCO liability imposed by ERISA).

Full reform of entity-level liability would require elimination of existing rules that insulate medical care entities from the full cost of medical negligence. Perhaps most important, it would require reform of the Employee Retirement Income Security Act of 1974 (ERISA) Pub. L. No. 93-406, 88 Stat. 829 (1974) (codified as amended at 29 U.S.C. § 1001-1461 (2000)) that currently presents patients from suing their MCOs for compensatory damages resulting from injuries from negligent, coverage decisions that in effect prevents a patient from receiving necessary and appropriate medical care. Aetna Health Inc. v. Davila, 124 S.Ct. 2488 (2004). MCOs also generally are not liable for physician negligence, even when they restrict the pool of physicians that a patient is permitted to see. Hospitals, similarly, often are not vicariously liable for negligence of many doctors practicing on-site – even though hospitals directly and indirectly influence the quality of care they provide – because hospitals usually hire most doctors as independent contractors. Arlen & MacLeod, supra note 2, at 1987-1998 (Economic analysis shows that optimal deterrence requires the MCOs be held liable for both their own negligence and that of their affiliated physicians); see also Jennifer Arlen & W. Bentley MacLeod, Beyond Master-Servant: A Critique of Vicarious Liability, Chapter 4 in EXPLORING TORT LAW (M. Stuart Madden, ed.) (2005) (the independent contractor rule distorts principle-agent relationships in ways that create excessive risk).
Proponents of contractual liability generally agree that liability is needed to induce medical providers to invest adequately in patient safety. They also agree that the current system needs to be reformed. They contend, however, that the best way to reform malpractice liability is to let patients and medical providers reform malpractice liability by contract. Specifically, they favor allowing patients and medical providers to determine the scope and magnitude of liability by contract; this right to contract over liability would include the right to contract out of it. A few proponents of contractual liability advocate complete freedom of contract between individual providers and patients. However, most contractual liability proponents advocate entity-level contractual liability, under which malpractice liability is imposed on medical entities (such as MCOs) who are then permitted to contract with patients over the scope of (and existence of) liability.

II. ECONOMIC ARGUMENT FOR CONTRACTUAL LIABILITY

This section presents the standard economic argument for contractual malpractice liability. While various contractual liability proposals differ in their specifics, the economic argument in their favor rests on the shared premise that patients are better off when they are able to contract over the scope of liability. This premise rests on the assumption that patients and medical providers can, and will, contract into the set of liability rules that maximize their joint welfare -- provided that patients are sufficiently informed to contract over liability and that contracting is voluntary. To date, the debate over contractual liability has largely accepted the core premise that patients and medical providers contracting over liability will adopt the rules that maximize their joint welfare, assuming that contracting is informed and voluntary.

60 Most proponents of contractual liability agree that liability is needed to deter medical negligence, but contend that the scope of this liability should be determined by contract. E.g., Weiler and Abraham, supra note 5; Havighurst, supra note 5; Danzon; supra note 5; Mello & Brennan, supra note 5 (suggesting that contractual entity-level liability may be the solution to tort reform); see also Hylton, supra note 5 (parties to consensual relationships should be permitted to contract over liability). By contrast, some proponents of contractual liability appear to believe that sanctions may not be needed (or at least advisable) at all. See Epstein & Sykes, supra note 53 (agreeing that liability is needed in theory but suggesting that perhaps it is not desirable in practice because they believe it is imposed randomly); see also Richard A. Epstein, Medical Malpractice, Imperfect Information, and the Contractual Foundation of Medical Services, 49 LAW & CONTEMP. PROBS. 201 (Spring 1986); Schwartz, supra note 12 (supporting contractual liability for injuries resulting from product defects and concluding that consumers may be sufficiently informed for market forces to regulate product quality).

61 Richard Epstein is the leading proponent of contracting between patients and individual providers. E.g., Epstein, supra note 5; Epstein, Contractual Principles, supra note 5;

62 Proposals for entity-level contractual liability include Havighurst, supra note 5 (entity-level contractual liability); Abraham & Weiler, supra note 5 (entity-level contractual liability); Danzon, supra note 5 (same); Mello & Brennan, supra note 5.

63 For an excellent summary of the conventional economic case for contracting over
As discussed below, this argument for contracting only holds if contracting is voluntary, however. Accordingly, contractual liability is unlikely to benefit patients if it proceeds through adhesion contracts executed at the point of service. Largely for this reason, most proponents of contractual malpractice liability support forms of contracting designed to ensure that contracting is voluntary and effective, including entity-level contractual liability. The question for the next section is, do these forms of contracting result in patients obtaining the liability rules that benefit them?

A. ASSERTED BENEFITS OF LIABILITY DETERMINED BY CONTRACT

The claim that malpractice liability can best be reformed by allowing patients and providers to adopt reforms by contract rests on a simple, and initially attractive, proposition. Contracting is superior because it allows those parties whose interests malpractice liability is designed to serve – patients and medical providers – to dictate the rules that will govern their relationship. Patients contracting with medical providers can be relied upon to contract for optimal rules to govern their relationships because patients internalize the full costs and benefits associated with imposing malpractice liability. Patients obtain the benefit of liability to the extent that it improves the expected quality of the care they receive. They also bear the cost of liability through the amount they must pay to obtain medical care. Accordingly, (assuming that patients understand how liability affects the expected costs and benefits of medical care), they will contract for the liability rules that maximize their welfare. When this is the case, malpractice liability reform cannot provide patients with any more benefits than they can obtain themselves through contract, because they will bargain to impose liability whenever they derive a net benefit from using it to improve health care quality; and they will not impose it when they do not obtain a net deterrence benefit.64

The economic claim that informed patients and providers have optimal incentives to contract into liability leads naturally to the conclusion that contractual liability is not just equal to malpractice liability, it is superior to it.65 As long as patients can be relied upon to adopt optimal rules, contracting is superior to tort, it is claimed, because it places control over the structure of liability with the parties who are best able to evaluate the costs and benefits of liability, because they are the ones who will bear them.66

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64 See supra note 63.
65 This belief that contracting over liability is clearly superior to tort liability when customers (here patients) can act in their own best interests at the moment of contracting runs through the economic literature on contracting over both malpractice liability and products liability. E.g., Epstein, supra note 5; Epstein, Contractual Principles, supra note 5; Danzon, supra note 5; Hylton, supra note 5; Schwartz, supra note 12.
66 Patients know more than courts do about their own willingness to pay for any such safety
Contractual liability also is superior to mandatory malpractice liability because it allows patients with different preferences for safety to opt into different liability rules. Whereas malpractice liability in effect forces all patients to pay for the same standard of care, contractual liability allows patients to adopt different standards of care, tailored to their own preferences. Patients benefit from this control because no one standard of care is right for all patients. Patients differ in the amount of care they want to induce because they differ substantially in their ability, and thus their willingness, to pay for health care. A standard of care designed to meet the demands of an upper middle class patient may force a poorer patient to obtain care of a higher quality than he is willing or able to pay for. Contracting over liability allows each patient to select the liability rule that produces the quality level that he is willing and able to pay for. Malpractice liability does not.

Patients are guaranteed to benefit from this variation in liability rules because -- but only because -- each patient is assumed to have the capacity and ability to contract into the set of liability rules that maximizes his welfare. This assumption leads to the conclusion that contracting over liability is superior to any tort rules that can be adopted because contracting can provide the same benefit as tort to any patient who would benefit from tort law, while providing superior benefits to those patients who would prefer an alternative set of rules. No one is worse off than they would be under the best possible malpractice liability reform, it is claimed, because those patients who benefit from malpractice liability can, and will, contract into a set of liability rule that replicates it. They are thus unaffected by contracting. Yet some patients are better off. Specifically, patients who would prefer a different type of liability rule, or perhaps no liability at all, are better off when they are allowed to contract out of liability and into a set of rules that benefit them more.

**B. PROBLEMS WITH ADHESION CONTRACTS AT THE POINT-OF-SERVICE**

The core economic claim for contractual liability that patients and medical providers can, and will, contract into the optimal rule to govern their relationship, stands largely unchallenged. Yet it is subject to the proviso that contracting must

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67 Epstein, supra note 5; Epstein Contractual Principles, supra note 5; see Schwartz, supra note 12. Patients also differ in their desire for, and willingness-to-pay for, the compensation that malpractice liability provides. For example, patients differ in their demand for compensation because they differ in both their degree of risk aversion and their access to alternative sources of accident insurance. They also will differ based on their expected benefit from being given the right to bring a tort action. This turns on capacity to effectively identify a valid claim and expected damages.

68 E.g., Epstein, supra note 5; Epstein, Contractual Principles, supra note 5; see Hylton, supra note 5; Schwartz, supra note 12.

69 Outside of the medical practice area, a few analyzes of products liability have identified isolated reasons to question whether contracting over liability is always optimal. Geistfeld, supra note
be informed and voluntary. This limits the form that contracting over malpractice liability can take. Specifically, it eliminates contracting that occurs when a physician or hospital offers a patient seeking medical care a take-it-or-leave-it liability term in a standard form contract. These contracts are unlikely to be informed or voluntary because patients often do not fully investigate standard form contracts when seeking medical care and often cannot exercise truly free choice to reject undesired terms should they do so.

Contracting through adhesion contracts could be efficient if buyers (here patients) can provide optimal incentives to sellers (here medical providers) to offer the terms they prefer. This means that sellers must expect buyers to read and understand contract terms in adhesion contracts. In addition, buyers must be able to easily reject unfavorable terms in favor of another seller who offers superior terms. While these conditions may hold in the case of a product purchase by a buyer contemplating a store shelf with many different products on it, with warranty terms emblazoned on the outside of the box, they do not hold for patients contracting with medical providers at the point of service.\(^\text{70}\)

Patients contracting with medical providers at the point-of-service may agree to welfare-reducing exculpatory provisions that harm them either because they are unaware of them or because they have no effective choice. Patients generally do not obtain copies of a physician's service contract until they seek care.\(^\text{71}\) At this point, a

\(^{12}\) (customers who are insured against injuries will not have optimal incentives to contract into liability); Jennifer Arlen & William Bunting, Signaling Quality to Heterogeneous Consumers Through Renegotiable Contractual Liability (unpublished manuscript, 2007) (exploring the implications of renegotiation for contracting over products liability by heterogeneous consumers); Abraham Wickelgren, The Inefficiency of Contractually-Based Liability With Rational Consumers, 22 J. LAW, ECON. ORG. 168 (2006) (exploring the implications of renegotiation for contracting over products liability by homogenous consumers). But these analyzes have not thoroughly addressed the structural claim that contractual liability can provide the same benefits as tort liability. The exception to this premise is found in my prior work on medical malpractice liability, where I have shown that contracting may not be efficient, Arlen & MacLeod, supra note 2, at 1998-2004 and Arlen, supra note . The present article deepens these analyzes and extends them to consider whether entity level contracting with commitment can be used to induce optimal contracting.


\(^{71}\) This problem is compounded by the fact that patients often do not anticipate the need for medical care and thus could not reliably review contracts even if they were available. This is especially an issue for patients needing surgery, where often time is of the essence and the patient may not be in a good position to expend the time and energy on search once he is ill. Cf. infra Section IV (discussing how MCOs could employ adhesion contracts without creating the same problems because patients contract with MCOs in advance of needing medical attention).

The present analysis does not address whether requiring physicians to post their contracts on the web could solve these problems because this article addresses an alternative, superior, form of adhesion contracting (contracting through MCOs) in Section IV, infra. The problems discussed in that section also would apply to adhesion contracting with commitment by physicians if, as it is reasonable to assume, MCOs design plans to maximize their own profits by using physicians' liability contracts to select for lower cost patients.
patient presented with a liability waive may be forced to accept it because the costs of seeking a new provider are too high and the expected benefits too low. The costs are likely to be too high if the patient expects to be harmed if he delays treatment in order to find a new provider with better terms. This is certainly the case for patients seeking emergency medical care. Patients seeking non-emergency care also may conclude that delay is too costly given that patients often wait months to get an appointment with a new provider, and would have to wait additional months to obtain an appointment with another provider. Patients also may decide that searching for a new provider is too costly if patients cannot determine whether other providers offer better terms and, if so, which ones. Faced with this uncertainty, patients may conclude that the expected net benefit of searching for another provider is low and thus accept a term that they would not accept if they had information about all providers’ liability terms far in advance of seeking services. Accordingly, given these high search costs, contracting over liability through adhesion contracts offered at the point of service encourages medical providers to reduce their own costs by insisting on liability waivers even when these waivers are inefficient.72

Patients also may accept welfare-reducing liability waivers in standard form contracts because they did not know they were there. Patients may rationally decide not to read long standard form contracts because they conclude it is unlikely to be worth the effort. Patients may be rationally ignorant in the hope of free-riding on the efforts of others. They may assume that providers’ contacts with other patients, who do read contracts, will cause them to remove any truly negative terms. Also, patients may be rationally ignorant if they recognize that reading the contract is unlikely to cause the patient to seek a new provider. This is particularly likely if the patient faces search costs whose burden exceeds the expected benefit. It also is likely when patients contract with a monopoly provider (e.g., the only hospital in the area). Patients also may not thoroughly read their contracts because they are too ill to focus on such matters.

Finally, although not the focus of this article, it should be observed that patients may agree to waivers in error because they underestimate the benefit of imposing liability to increase medical quality. This is likely if, as is likely, patients either under-estimate their own need for medical care or under-estimate the expected

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72 Arlen, supra note 12, at 254 & n. 34; see supra note 71. For a discussion of search costs see Alan Schwartz & Louis L. Wilde, Imperfect Information in Markets for Contract Terms: The Examples of Warranties and Security Interests, 69 Va. L. Rev. 1387 (1983). In their work on search costs, Professors Alan Schwartz and Louis Wilde showed that search costs are particularly likely to result in inefficient adhesion contracts if there are relatively few comparison shoppers (in other words, if most patients accept the terms offered them) and if the firm has a comparative advantage in selling without liability (in that it needs fewer customers to break even when it does not assume liability). Schwartz and Wilde, supra, at 1397, 1409-1410. These conditions appear to be met for contracting over malpractice liability because liability waivers lower producer’s costs and many patients do not effectively comparison shop for providers, in part because they are constrained in their choice of providers by either their health plans or geographical considerations.
impact of liability on their expected outcome from medical care. This can result in patients waiving liability, even when it is not in their best interests to do so.

Consistent with this analysis, courts consistently invalidate liability waivers in standard form adhesion contracts executed between patients and their medical providers at the point-of-service, largely out of the concern that patients may not be able to exercise an effective choice when required to accept a standard form exculpatory provision as a condition of obtaining needed medical care. While some have decried these decisions, most proponents of contractual liability agree that patients cannot contract effectively over liability when presented with standard form contracts for medical services, at the point of service, that contain take-it-or-leave-it exculpatory provisions. The solution, they contend, is to adopt a form of contracting over liability that ensures that patients contract voluntarily.

C. VOLUNTARY CONTRACTING WITH PHYSICIANS OR MEDICAL ENTITIES

Proponents of the economic case for contracting have responded to these concerns by fashioning contractual liability rules designed to ensure that patients can exercise effective choice over whether to impose liability, free from the problems created by search costs and medical duress.

One approach is to permit contracting over liability between individual

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73 See, E.g., Arlen, supra note 12, at 263-64 (discussing information problems); Arlen & MacLeod, supra note 2, at 1999-2000 (discussing information problems); see also Geistfeld, supra note 12 (discussing information problems with contractual products liability).

Patients are likely to underestimate the benefits of using liability to regulate medical error, because they underestimate both the likelihood that they will be ill and estimate the probability of medical error absent sanctions. See supra note (discussing evidence that patients underestimate quality differences); Neil D. Weinstein, Unrealistic Optimism About Susceptibility to Health Problems: Conclusions from a Community-Wide Sample, 10 J. BEHAV. MED. 481, 494-96 (1987) (discussing evidence that people under-estimate the probability that they will fall ill). Moreover, contracting over liability also can result in inefficient waivers if patients can easily determine the cost of imposing liability (through the difference in price), but are uncertain of the benefits). See David Dranove & M. A. Satterwaite, Monopolistic Competition When Price and Quality Are Imperfectly Observable, 23 RAND J. ECON. 518 (1992) (competition in health care markets may lower consumer welfare when the consumers can easily compare the prices charged by different insurers, but quality differences are unclear, because competition will produce excessive focus on price terms, leading providers to lower price, even at the expense of depressing quality below optimal levels).

74 Arlen & MacLeod, supra note 2.


76 Epstein, Contractual Principles, supra note 5; see Michael F. Cannon, Reforming Malpractice Liability Through Contract (unpublished manuscript, 2007).
patients and their providers, but require all providers to accept patients who want to obtain medical services with the protections that liability provides (albeit at a higher price). A particularly attractive way to ensure patient choice is to insist that providers seeking to waive liability engage in two-price contracting over liability. Under two-price contracting, each provider who wants to contract out of liability offers each patient a choice between two contract clauses, one that imposes liability and one that does not (the latter would be less expensive than the former). The contract also would specify the additional amount that the patient must pay in order to impose liability. This structure ensures that patients read the contract, because they must affirmatively select between two clauses. It also promotes voluntary contracting, because each patient is guaranteed the right to obtain service with the protections that liability may offer. Finally, it is claimed that two-price contracts reduce information problems, by providing patients with information about the impact of liability on each medical providers’ net expected costs of bearing liability. This contracting can occur through individual providers or medical entities.

Another approach, that is more popular with medical malpractice experts, is to channel both liability and contracting through medical entities, such as hospitals and MCOs. Proposals for MCO contractual liability impose default liability on MCOs for patient injuries resulting from their own actions that cause a patient to receive substandard care (e.g., through utilization review) and for medical error by affiliated physicians and hospitals. MCOs would be permitted to contract with patients to modify (or eliminate) liability imposed either for MCO actions or for individual provider negligence. MCOs also could contract with physicians and hospitals to shift liability to them. As discussed later, MCO contractual liability

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77  This proposal is particularly popular with those pressing for contracting over products liability, but also is easily adaptable to contracting with individual medical providers as well. For a discussion of the justifications for two-price contractual liability is presented in the Reporters’ Study to the American Law Institute’s Project on Enterprise Liability, 2 American Law Institute, Enterprise Responsibility for Personal Injury, at 522 (Reporters’ Study, Paul C. Weiler, ed., 1991). Other supporters of this proposal include Schwartz, supra note 12.

78  For a critique of the claim that two-price contractual liability solves the information problem see Geistfeld, supra note 12, at 822-833. Professor Geistfeld also examines problems created for two-price systems if consumers can purchase first-party insurance against losses that is not experience-rate based on the quality of the product purchased. Id.; see also Jon D. Hanson and Kyle D. Logue, The First-Party Insurance Externality: An Economic Justification for Enterprise Liability, 76 CORNELL L. REV. 129, 145-153 (1990).

79  Danzon, supra note 32, at 1382 (arguing that imposing contractual liability on MCOs offers the providers the right incentives to contract out of liability and remedies the problems arising from waiver at point of service). Proposals for entity-level contractual liability include Havighurst, HEALTH CARE CHOICES, supra note 5 (MCO contractual liability); Danzon, supra note 5 (same); Havighurst, Vicarious Liability, supra note 5; Sage, supra note 5, at 163 (discussing MCO channeling liability and quality control through MCOs is superior to channeling it through hospitals); Sherry Glied, Managed Care, in 1A Handbook of Health Economics, 725 (Anthony J. Culver & Joseph P. Newhouse eds., 2000) (same); Abraham & Weiler, supra note 5, at 393-94 (arguing for contractual enterprise liability for hospitals); Mello & Brennan, supra note 5 (contractual liability for hospitals); Weiler, supra note 23 (same).
promotes voluntariness and reduces search costs because patients contract over liability as part of their annual decision about health benefits, a decision that patients make over a period of weeks, prior to needing medical care, presented with all options available to them, and along with other employees in similar circumstances.80

Both proposals significantly reduce the problem of duress and search costs, and provide more information than is available through individual contracting with adhesion contracts. While neither proposal eliminates all information problems,81 proponents of contractual liability argue that the remaining problems are not serious. Thus, they conclude that tort reform efforts should focus on adopting contractual liability.

D. DO PATIENTS HAVE OPTIMAL INCENTIVES TO CONTRACT FOR LIABILITY?

These arguments for contractual liability rely on the assumption that patients engaged in voluntary contracting will contract into optimal liability rules if accurately informed about the costs and benefits of imposing liability. Yet, to date, this assumption has not been examined. The economic models establishing that contracting over liability is efficient apply to contracting over products liability through adhesion contracts. To date, no one has thoroughly examined whether voluntary informed contracting over medical malpractice leads to optimal contracting, in the sense of leading patients to select liability when it is optimal to do so, assuming that they are informed about the costs and benefits of imposing liability. This article undertakes this analysis.

The argument that patients have optimal incentives to contract into liability if they are informed about the costs and benefits of liability is, in effect, a claim that patients will contract into liability whenever a benevolent social planner would have concluded that liability should be imposed by fiat. Moreover, they will contract for the form of liability that the social planner would have selected. This condition is met if two conditions are met. First, patients must be able to create by contract a form of liability that enables them to obtain all the benefits that they would obtain from liability imposed by the planner (we will focus here on liability imposed by fiat). Second, they must obtain the same benefits from imposing liability as would the social planner. This implies that they must internalize the full costs and benefits of imposing liability.

80 See infra Section IV. Two-price contracting is important even for MCO contracting, notwithstanding the fact that patients contract with MCOs because they need medical services (thus free from the pressures of medical duress). Nevertheless, even in this context, voluntariness is an issue because the tax laws distort the choices available to patients by granting superior tax breaks to plans offered to a patient by his employer. Economic forces favoring contracting through employee pools (i.e., adverse selection) also result in patients facing strong incentives to limit their search for health insurance to the plans offered by their employer. Accordingly, a patient offered only one plan, that waives liability, may face strong pressure to do so even when this is not optimal for him. It is suggested that two-price liability can solve this problem.

81 See Geistfeld, supra note 12.
The existing debate over contractual liability has largely focused on the last issue, information problems. The present analysis focuses on the first two, which are more fundamental. Specifically, this article examines whether patients will indeed impose liability through voluntary contracts whenever they would benefit from liability being imposed. To determine whether we can rely on voluntary contracting with individual providers to produce optimal liability contracts this article examines whether contracting will result in patients contracting into liability when it is optimal for them to do so assuming that patients correctly determine the costs and benefits of imposing liability by contract. Specifically, it examines whether patients who derive a net benefit from the investments in care induced by malpractice liability would derive the same net benefit from a decision to impose liability by contract. A finding that patients who benefit from malpractice liability nevertheless would waive liability imposed by contract implies shows that contractual liability is inefficient because it does not provide sufficiently strong benefits to patients to induce them to impose liability when it is optimal to do so. Imposition of contractual liability in these circumstances harms these patients who benefit on net from tort liability but choose to waive liability imposed by contract.

This article begins this analysis by examining whether voluntary contracting between patients and individual providers leads to optimal decisions to impose liability. The following section examines entity-level contractual liability executed through MCOs. Both show that these forms of contracting over liability are not optimal. Moreover, contracting is not optimal even when patients are informed about the costs and benefits of imposing liability.

III. VOLUNTARY INDIVIDUAL CONTRACTING AT THE POINT OF SERVICE

This section examines whether contracting between patients and providers at the point of service provides patients with optimal incentives to contract into liability, assuming that contracting is voluntary in that each provider must offer patients a choice between imposing liability and waiving it. While the present

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82 A few scholars have identified problems with contractual liability that go beyond information problems. See Arlen & MacLeod, supra note 2; Arlen, supra note 12; Geistfeld, supra note 12; Wickelgren, supra. Not all of these prior arguments apply to all proposals for contractual malpractice liability, however. For example, in an article on contractual products liability, Mark Geistfeld correctly observed that patients do not have optimal incentives to pay to use contractual liability to increase product safety if they already have first-party insurance (from another source) to cover them against the injuries products might cause. Geistfeld, supra note 12. This argument would not apply to contracting with health plans over malpractice liability because contracting would involve the patients’ first-party insurer, which would adjust rates based on the patients’ choice of liability rule.

83 This net benefit is net of both the cost of the investments themselves and the cost of using liability to induce them.

84 As previously explained, to focus the analysis on the core issue of contract versus torts, it is assumed, for arguments sake, that this contracting is voluntary and that patients do accurately evaluate the net benefits of any liability provided by contract.
analysis explicitly discusses two-price contracting, it also applies with equal force to any individual provider contracting over liability in which patients can effectively negotiate for the liability terms they want at the point of service.\textsuperscript{85}

This section shows that voluntary contracting over liability with individual providers does not lead to optimal contracting into liability. To the contrary, it creates a systematic incentive for informed patients to waive liability even if they would be better off were liability imposed. Patients who are informed about the costs and benefits of liability waive contractual liability, even when they would be better off were liability imposed, because patients do not obtain the same benefits from contractual liability that can be obtained from liability imposed by the state. Contracted for liability is not as valuable because malpractice liability can be used to optimally regulate both pre-contractual care and collective care, whereas voluntary individual contractual liability cannot.\textsuperscript{86}

A. USING LIABILITY TO REGULATE MEDICAL ERROR

To determine whether contracting over liability is optimal, we need to examine how malpractice liability affects patients’ welfare. Patients’ health depends on a variety of different types of investments in care. These investments differ in their timing. Specifically, patients’ health depends on inducing medical providers to make investment in safety both pre-contract (perhaps long before meeting the patient) and post-contract. Pre-contractual investments that are relevant to future patients include investments in expertise, health care technology, staff training and administrative systems designed to protect future patients from error (hereinafter, pre-contractual care). Post-contractual investments needed to protect patients from error include investments in expertise, testing, improving administrative systems, supervision and care in performing procedures.\textsuperscript{87} As a result, the optimal contract to

\textsuperscript{85} In other words, the present analysis applies to any individual provider contracting where the provider cannot make a binding take-it-or-leave-it offer concerning liability, because the patient is able to deal with the provider directly.

\textsuperscript{86} Contracting between physicians and individual patients also is not likely to be efficient because patients with health insurance do not bear the full cost of their decision not to impose liability, or, equivalently, obtain the full benefit of their decision to impose liability, because insurers bear most of these additional costs. See Geistfeld, supra note 12 (making this observation in the context of contractual liability for product defects).

\textsuperscript{87} Post-contractual expertise includes investments physicians take to improve their overall ability to diagnose illnesses and select treatments, including reading medical journals and attending continuing medical education sessions. It also includes investments in learning how to do new procedures. Finally, it also includes the purchase and effective use of health care technology.

Post-contractual expertise is important because medical care is a dynamic technology. Treatments that were optimal one year are no longer optimal the next. Physicians’ ability to select the right treatment thus depends on on-going investments to keep up with the latest advances. Cf. Lisa Sanders, Medicine’s Progress, One Setback at a Time, N.Y. TIMES, Mar. 16, 2003, §6 (Magazine), at 29-30 (detailing how each week medical journals provide new evidence on treatments that challenges old knowledge and sometimes provides new); Annetine C. Gelijns et al., Uncertainty and Technological Change
regulate health care must reach both backwards and forwards in time, to regulate both forms of investments. Alternatively, liability imposed today must regulate investments of both current providers as well as future ones, as a provider’s actions today affects their patients’ tomorrow.

Investments in patient safety also differ in their scope. Specifically, they differ in the number of patients affected. While some investments only affect one patient – as when a doctor spends extra time with a patient or orders a patient-specific test – most other investments in care affect the expected welfare of many patients. These “collective investments” include investments in expertise, equipment, health information technology and rules governing hours worked. Patients subject to liability that regulates collective investments in care cannot make individual decisions about liability that are independent of others. Providers’ incentives to invest in care that affects a group of patients depend on the total expected benefit to them of reducing the risk of error for the entire group. This total expected benefit depends on the expected liability the provider faces for injuries to each member of the group. Thus, each patient’s welfare depends on the liability imposed for harms to others; in turn, any decision a patient makes regarding liability effects others’ welfare.

These features of the investments in medical safety affect the structure of the optimal liability rule. It must reach both forward and backward in time to regulate pre- and post-contractual care. It also must reach across patients to optimally coordinate incentives to ensure that providers invest optimally in collective care. A benevolent social planner seeking to provide optimal incentives that reach across time periods and across patients could do so by imposing an optimal malpractice liability by fiat. Accordingly, the benefit to a patient of an optimal liability rule is based on its ability to induce greater investment in both pre-contractual care and post-contractual care, as well as greater investment in collective care and patient-specific care.

Mandatory malpractice liability can be used to provide optimal incentives to invest in care. Malpractice liability is a collective liability rule that imposes liability on each provider for the benefit of all of his patients. It also is a multi-period and multi-provider form of liability that governs all of each patient’s current medical providers, as well as all their future ones. This multi-period, multi-provider, collective liability rule can be used to induce optimal investment in pre-contractual care (as well as post-contractual care) because medical providers subject to optimal mandatory liability know that they will face a threat of liability for harms to future patients, and thus, have an incentive to undertake all cost-effective investments that reduce their

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*26* J. HEALTH POL. POL'Y & L. 913, 914 (2001) (Approximately 35% of the 200 largest-selling prescription drugs are new each year, and in one year alone the Food and Drug Administration (FDA) approved approximately 5,000 new and modified medical devices).

For a detailed discussion of these investments in care see Arlen & MacLeod, supra note 3 and Arlen, supra note 12.

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88 See Arlen & MacLeod, supra note 2, at 2003-04 (identifying the issue of collective investments in care as an issue for contractual liability); Arlen, supra note 12 (same).
expected risk of error, including pre-contractual investments. Mandatory malpractice liability also can be used to induce optimal investment in collective care. Mandatory liability ensures that each provider bears the cost of all injuries to all patients. Each provider thus takes into account the welfare of all her patients when deciding how much to invest in measures that reduce all patients’ risk of harm from error.89

Patients and providers contracting over liability will contract for efficient liability rules – imposing liability whenever it is welfare enhancing – only if patients obtain the same benefit from a decision to impose liability by contract that they would obtain were the state to impose an optimal liability rule by fiat. This implies that they must derive the same benefits from liability imposed by contract that they derive from liability imposed by a benevolent social planner. Among other things, this implies that a patient deciding whether to impose liability by contract must find that the decision to impose liability enables him to obtain care from providers whose expected investments in pre-contractual care are greater than they would be if liability is not imposed. He also must face optimal incentives to impose liability to govern collective care.

If contracts provide optimal incentives then patients and providers can do as well (or better) by contract as the state can do through tort reform, as long as patients are informed. By contrast, if patients obtain less benefit from contracted for liability than they would obtain from optimal liability, then patients face deficient incentives to contract into liability and they will not demand the level of liability that maximizes their welfare. Indeed, if required to contract over liability, patients will rationally choose to waive their right to impose liability even in circumstances where they would be better off having liability imposed. In this situation, we cannot confidently rely on contracting to govern malpractice laws because the choice that contracting requires is not one that patients can effectively make in their best interests (even when they are informed). A state that genuinely has patients’ best interests at heart can likely benefit patients more by retaining and reforming malpractice liability.90

To test whether patients will contract optimally into liability, the present Article analyzes whether patients who derive a net benefit91 from the investments in

89 Contractual liability proponents recognize that malpractice liability binds many people at the same time across periods, but they have focused only on the cost of this collective form of liability: the fact that it does not tailor liability to individuals’ different needs. E.g., Richard Epstein, Products Liability as an Insurance Market, 14 J. LEGAL STUD. 645 (1985) (discussing the problems with a unitary rule for products liability when consumers’ differ). They have not examined whether there are benefits to collective liability. The present analysis of the inter-relationship between malpractice liability and patient safety reveals that many patients may derive a benefit from these binding features of malpractice liability.

90 On aggregate, the relative merits of the two would turn on the cost to patients who benefited from tort liability of substituting a structurally inferior rule, as compared to the benefits to those who do not benefit of the opportunity provided by contract to contract out of liability altogether.

91 This net benefit is net of both the cost of the investments themselves and the cost of using
care induced by malpractice liability derive the same net benefit from a decision to impose liability by contract. Patients who waive liability by contract even though they would have benefited from net by liability imposed through tort are worse off under contractual liability than under tort liability.

B. STANDARD ECONOMIC ACCOUNT OF OPTIMAL CONTRACTUAL LIABILITY

Proponents of contractual liability assert that patients have efficient incentives to contract on the assumption that patients get all the benefits of their decision to use liability to increase safety. This claim relies on economic models of contracting over liability developed in the products liability context. These analyses depend on models whose assumptions do not apply to voluntary contracting over malpractice liability, however.

1. Post-Contractual Care

The claim that participants in market relationships have optimal incentives to contract for liability to regulate post-contractual quality is very straight-forward. Informed patients, it is claimed, are willing to pay more for medical services when they can be confident that the caregiver will invest optimally in delivering treatment even after the patient has committed to the relationship. When consumers cannot observe quality, providers have a strong market incentive to find an alternative mechanism to enable them to commit to invest in quality post-contract. A contractual promise to bear liability for consumers’ losses is just such a commitment mechanism: consumers know that any provider who makes such a promise will invest in optimal care post-contract, because doing so reduces the providers’ expected costs. Accordingly, it is argued, a consumer has optimal incentives to impose liability designed to regulate post-contractual care because imposing liability allows him to induce post-contractual quality he otherwise could not obtain. He thus will pay to impose liability whenever the benefit to him of the resulting increased quality exceeds its cost; he will not impose it otherwise.

liability to induce them.

92 Since the compensation the patient receives from the defendant is a transfer, these costs are the defendant’s and plaintiff’s litigation costs, plus the costs to society of litigation. In those relative few cases where patients receive compensation in excess of his optimal insurance coverage then these costs also include the welfare loss of shifting wealth from a high value state of the world to a low value state of the world. Arlen; Cook & Graham Hanson; Priest.

93 As previously explained, to focus the analysis on the core issue of contract versus torts, it is assumed, for arguments sake, that this contracting is voluntary and that patients do accurately evaluate the net benefits of any liability provided by contract.

94 For a discussion of why much post-contractual care cannot be regulated directly through contract see Arlen & MacLeod, supra note 2.

95 E.g., Hylton, supra note 5 (presenting a model of contracting over waivers that implicitly assumes that accidents depend only on an injurer’s decision, post-contract, to take care to benefit one person); George Priest, A Theory of Consumer Product Warranty, 90 Yale L. J. 1297 (1981).
2. Pre-Contractual Care

It is claimed that participants in market relationships also have optimal incentives to contract into liability to regulate pre-contractual care. This claim is more complicated, however, because a party contracting into liability cannot use the decision to impose liability to alter the other party’s pre-contractual care. By definition, pre-contractual care is fixed at the moment of contracting. Actual choices made during contracting cannot change the past.96

Although liability imposed during contracting does not alter pre-contractual quality, people purchasing products and services nevertheless can benefit from the use of contractual liability to regulate pre-contractual quality under certain circumstances. At the moment of contracting, providers with different pre-contractual investments in care offer services of different expected quality. Contracting over liability can be used to enable a patient to obtain the benefits of purchasing from a provider who made high pre-contractual investments in quality (high quality), as opposed one who did not, if high quality providers can signal their superior quality by offering to bear liability for injuries caused by error. High quality providers can signal their quality by accepting liability for injuries if low quality providers cannot imitate them without losing money. This condition is met if patients select liability contracts when they believe that are contracting with high quality providers, because low quality providers cannot charge the same price as high quality providers for liability because low quality providers have higher expected liability costs because their services are riskier. Accordingly, when patients impose liability in equilibrium, consumers can contract over liability to regulate pre-contractual care because higher quality providers will use liability to signal quality.97

Signaling not only helps consumers distinguish high quality providers from low quality ones, it can induce greater investments in pre-contractual quality. Providers facing a market in which their competitors can use contractual liability to signal quality have strong incentives to invest in optimal care, to ensure that they too will be able to produce the high quality goods needed if they too want to attract consumers by offering liability contracts. When contracting promotes signaling, it can produce the same deterrence benefits as mandatory liability.

3. Limitations of this analysis as applied to voluntary contracting for malpractice liability

Proponents of contractual liability generally assume that these analyses of contractual liability capture the essential features of contracting for liability to govern

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96 See Arlen & MacLeod, supra note 2, 2002-2003.
97 The classic papers people's ability to signal quality by agreeing to bear costs that lower quality people cannot afford to bear are Michael Spence, Job Market Signaling, 87 Quar. J. Econ. 355 (1973) and Michael Spence, Market Signaling: Informational Transfer in Hiring and Related Screening Processes (1974). The seminal papers on signaling quality through contractual liability (warranties) are Michael Spence, Consumer Misperceptions, Product Failure, and Product Liability, 44 Rev. Econ. Stud. 561 (1977); Grossman, supra note 11.
medical markets. They do not. Most immediately, these analyses do not capture essential features of contractual liability executed through two-price contracts between patients and individual providers. First, they assume that investments in care affect only one person. Yet patients contracting for liability to govern malpractice must use liability to regulate “collective” investments in care that affect the welfare of groups of patients. Second, these models generally assume that producers make one-price take-it-or-leave-it offers to consumers. Accordingly, these models do not answer the question of whether contractual liability is efficient if executed through two-price contracts. This issue is important because, as previously discussed, it is generally agree that individual provider contracting over liability is inefficient if done through one-price adhesion contracts because patients in need of medical services cannot be relied upon to reject poor contract terms in this circumstance. Two-price contracts are superior from this standpoint. Yet it is far from clear that two-price contracts can be used to optimally regulate medical care because they shift the timing of the decision to impose liability to a time after pre-contractual investments in care have been taken. This presents the concern that contracting may not optimally regulate pre-contractual quality.

C. COLLECTIVE LIABILITY

The conventional analysis presented above assumes that providers’ investments in care only benefit one patient. Yet most important investments in patient safety, both pre-contract and post-contract, affect many patients at the same time. Investments that confer a “collective good” on a group of patients include investments in expertise, technology, staffing and sleep. Collective goods have the effect of transforming liability into a collective – or at least an inter-dependent – decision because the benefit to a provider of investing in collective care depends on the impact of care on her total expected liability for all patients affected by the investment. Accordingly, each patient’s decision to impose liability both affects, and is affected by, others.

Recognition that quality is a collective good reveals that contracting between

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98 Indeed, they also often do not hold for products liability either. E.g., Arlen & Bunting, supra note 69(contractual liability may not be efficient when consumers can renegotiate liability contracts with the producers they select); Wickelgren, supra note 69. For the reasons given in this article, two-price contractual liability for product defects also would be inefficient when it is needed to regulate collective post-contractual care. Nevertheless, the problems associated with contracting over malpractice liability are more severe than those plaguing contracting for products liability because it appears to be more difficult – if not impossible – to remedy these problems through collective contracting with commitment. Because in the medical care area the entities best able to effect these commitment contracts also are the providers of health insurance, these contracts would solve the problems of collective action and time-inconsistency, but only by subjecting choices governing liability to the distortions that are caused by adverse selection. See infra Section IV.

99 Two-price contracting ensures that patients have some level of choice by requiring providers seeking to waive liability to also offer patients the right to pay to impose it.
individual patients and individual providers is not optimal. It also reveals that two-
price contracting is not optimal (whether through an individual provider or an
entity). Two-price contracting with individual providers cannot be used to regulate
collective goods effectively because it forces individualized decisions about liability in
circumstances where optimal contracting depends on coordination across all of a
provider’s patients.

Two-price individual contractual liability is not as effective a mechanism for
regulating collective care because patients contracting individually for liability to
govern collective care do not have optimal incentives to impose liability. When
liability operates primarily to regulate collective care, patients will not contract for an
optimal set of liability rules, but instead will reject liability imposed by contract even
when they would benefit from liability imposed by the state.

Patients will not impose optimal liability through individual contracting for
two related reasons. First, patients contracting individually over liability will under-
invest in liability (relative to the social optimum) because the benefit to any given
patient of imposing liability is less than the benefit to society of his choice. Each
patient who imposes liability does not obtain the full benefit of his decision to
impose liability because, to the extent that this choice increases collective care, he
only obtains a portion of the benefit of this investment. Other patients obtain the
rest. Accordingly, a patient contracting individually over liability will impose less
liability than is socially optimal, because he will base his willingness to pay for liability
on only the direct benefit he obtains from greater care, not on the total benefit to all
patients of his choice.

Beyond this, contracting over liability is unlikely to induce a patient to
impose liability even to obtain this private benefit of collective care. When care is
collective, each patient benefits from not imposing liability in the hope of free-riding
on the decision by other patients to impose it. Patients benefit from free-riding
because providers who make collective investments in care use them to benefit all
patients — those who invested in liability as well as those who did not. Accordingly, a patient may be able to obtain the benefit of collective care, without
having to pay for it, if other patients impose liability. Of course, if each patient
makes the same calculus, none of them will impose liability even when all would
benefit if liability were imposed from above.

Although there do not appear to be studies that directly test this collective care effect, there
are studies showing that the quality of treatment that patients receive depends on decisions made by
other patients relating to their treatment quality. E.g., Sherry Glied & Joshua Zivin, How Do Doctors
Behave When Some (But not All) of Their Patients Are In Managed Care? 21 J. HEALTH CARE ECON. 337
(2002) (the quality of care a patient receives from his physician depends not only on whether the
patient is enrolled in an MCO, but also on whether the physician’s other patients are predominately
managed care patients); Paul A. Heidenreich et al., The Relation Between Managed Care Market Share
and the Treatment of Elderly Fee-for-Service Patients With Myocardial Infarction 3, Nat’l Bureau of
outcome from treatment by a particular physician depends on portion of the patients enrolled in
managed care in the local market, and not just that patient’s choice of insurer).
The free-riding problem is likely to be particularly great here because many investments in collective care are discrete, not continuous. Providers do not make tiny incremental investments in equipment or additional staff every time one new patient adds liability. They make them in discrete units. When investments in quality are discrete, patients are likely to conclude that their decision will have absolutely no effect on the quality of care they receive if they are among many patients served by this provider. The medical provider will invest in discrete care, or not, based on whether it is worthwhile given his total expected liability for all of his patients. No one patient expects that his decision to impose liability will impose the crucial additional liability needed to determine whether the provider makes the investment or not. Each patient, accordingly, would be rational to waive liability knowing that he can save money without having any expected marginal effect on investments in discrete collective care. The problem is, that all other rational patients also should waive liability, with the result that none of them will impose it even when they all would be better off were liability imposed.\textsuperscript{101}

Accordingly, when care is collective, patients will not make optimal decisions to impose liability. Contracting, instead, creates a systematic bias favoring waivers of liability even when they are not efficient. Patients who need to regulate collective care thus potentially benefit more from direct reform of malpractice liability than from the introduction of contractual liability.

\textbf{Numerical Example}

This problem associated with two-price contracting over liability can be easily seen using a numerical example.

Consider a physician with 10 identical risk neutral patients. The physician currently has a 1 in 10 chance of harming each of her patients, causing a $1,000 loss. The physician could reduce this risk to 1 in 100 investing $300 in collective post-contractual care. Obviously, all patients would be happy to pay the physician to invest in this care. The average cost to each patient of this care would be $30, in return for which each would obtain an expected benefit of 90 ((.10-.01)1000=(.09)1,000=90).

\begin{center}
\begin{tabular}{|c|c|c|c|}
\hline
Care & Prob. Error & Total Exp. Harm & Net Social Costs \\
\hline
0 & 1/10 & 100 * 10 & 1,000 \\
300 & 1/100 & 10 * 10 & 400 \\
\hline
\end{tabular}
\end{center}

Patients would benefit if the state imposed liability as this would compel the provider to invest in cost-effective care. Indeed, they each would benefit even if expected litigation costs went as high as $60 per patient. Here we shall assume each patient pays $1 in litigation costs.\textsuperscript{102} In this situation, the optimal liability rule is to

\textsuperscript{101} Arlen & MacLeod, \textit{supra} note 2, 2003-04; Arlen, \textit{supra} note 12, at 258-59.

\textsuperscript{102} This assumption supports the conclusion that patients would not pay a fair price for imposing liability if all they obtain is compensation and not deterrence. This compensation operates
impose liability for all patients’ harms on the provider in order to induce the provider to invest in care.\textsuperscript{103}

Although this is the optimal rule, patients will not select this rule if they contract individually over liability through two-price contracts with individual providers. For simplicity, assume that the provider charges $30 for liability, which is the expected cost to the provider of taking the care she would take if all patients impose liability. This two-price liability contract cannot be used to induce the provider to invest in care because no patient will pay for the liability clause. No individual patient benefits from imposing liability because care here is discrete, and no one patient’s decision is likely to be determinative of whether the provider invests in care. For example, if none of the other patients invest in care, then the provider will not invest in care no matter what this one patient does, as expected liability of $90 for one patient is not enough to induce a $300 investment. If the other patients invest in care, then this patient need not, for the provider’s additional expected liability to these nine patients if he does not invest in care – $810 – is more than sufficient to get him to invest the $300.\textsuperscript{104} Thus, this patient has no reason to pay any money to impose liability himself.

Accordingly, each patient in this example will make a rational decision to waive liability, even though collectively they all would be better off if liability is imposed. As a result, the equilibrium under two-price contracting is one in which no patient imposes liability and the physician does not invest in collective care. This equilibrium is inefficient in that each patient faces an additional net cost of $60 which could have been avoided had liability been imposed by fiat.

Contractual liability thus is an inefficient mechanism for regulating providers’ investments in collective post-contractual care because it forces patients to contract individually to obtain a collective benefit. Patients who would benefit from as a kind of insurance against losses from medical error. Compensation is a form of insurance because patients pay for it up front. When patients impose liability, then in effect agree to pay a premium to the provider (equal to the provider’s expected costs of bearing liability) in return for receiving compensation if injured. Although people generally are risk averse, and thus value insurance, it is assume that patients would not be willing to pay to purchase a liability contract solely for the expected compensation offered because the amount they must pay a provider to cover his expected liability costs exceeds the net amount he expects to receive in compensation by the substantial amount that the two parties must pay their lawyers in litigation fees. Estimates place the administrative fees per claim at 40-50\% of the recovery. Studdert, et. al, supra note 41. Patients who want to insure against such losses are much better off finding an alternative form of insurance with lower administrative costs. First-party medical insurance operates to insure them against many of the medical costs associated with error. They can better insure against the other costs through first-party accident or disability insurance. See infra note 116 (discussing liability as a mechanism for insuring patients).

\textsuperscript{103} The patient would not impose liability simply to obtain compensation, however, because the provider will charge a patient the full expected value of damages paid in return for a promise to compensate him, but the patient will not expect to receive this same amount, because he loses a portion to litigation costs (here $1). See supra note 102.

\textsuperscript{104} $810 = (9)($90).
coordinating with each other to impose liability nevertheless will select not to impose it when presented with a two-price contract because they gain no incentive benefit from their marginal decision to impose liability and cannot effectively coordinate with other patients in order to remedy the problem. Therefore, two-price contracting over liability is not efficient.105

D. REGULATING PRE-CONTRACTUAL CARE

Two-price contracts also are inefficient because they cannot be used to optimally regulate pre-contractual investments in care.106

Patients benefit from malpractice liability because it allows them to induce greater investments in pre-contractual care.107 By contrast, patients and providers benefit from contracting into liability to regulate pre-contractual care only if high quality providers can use the offer to assume liability to signal that they are high quality.108 High quality providers can signal quality through liability contracts only if low quality providers cannot profitably imitate them. High quality providers cannot use liability to signal quality if low quality providers can mimic their contracts without suffering excess losses because patients cannot rely on liability to signal quality if low quality providers can profitably imitate the contracts of their betters.109

Analysis of individual contracting over liability reveals that high quality providers cannot use individual contracts to signal quality because low quality providers can imitate them without suffering a penalty. There are two reasons for this. The first is medical malpractice liability insurance. The second is that the structure of two-price contracts creates a situation in which low quality providers expect to be able to offer to bear liability without a significant threat of patients actually imposing liability on them.110 As a result, patients cannot use liability to regulate pre-contractual care and thus will not pay to impose it when this is its primary purpose. Providers anticipating waiver will, accordingly, under-invest in pre-

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105 This analysis of the problems of with two-price contractual liability also affect any form of individual provider contracting that ensures that patients can negotiate individually over liability at the moment of contracting.

106 This conclusion holds for contracting over both medical malpractice and for products liability.

107 These pre-contractual investments include investments in expertise, equipment, staffing and administrative systems that affect the risk of medical error in future periods.

108 See supra Section III.B. Voluntary contractual liability cannot induce pre-contractual care because, at the moment of contracting, pre-contractual care is fixed (by definition).

109 Assuming that low quality providers have lower costs than high quality providers, and thus that high quality providers charge higher prices, then low quality providers can profit from mimicking the liability contracts of high quality providers if they bear the same expected cost of making a liability offer as would a high quality provider.

110 To be precise, two-price contracting over liability will not result in a “Perfect Bayesian Separating Equilibrium” in which patients correctly believe that only high quality providers offer to bear liability for a low price.
contractual care, to the detriment of all.

1. Malpractice Liability Insurance

First, individual physicians engaged in uncoordinated contracting with patients will not write optimal liability contracts to govern pre-contractual care unless competition between them somehow leads them to draft contracts that result in medical malpractice liability insurers changing the structure of medical malpractice insurance. Absent some reason to believe that physicians will seek reforms to induce experience-rating of insurance, a pure contractual solution\(^{111}\) to malpractice reform is not efficient because patients will not be able to contract optimally over liability to regulate pre-contractual care.

Individual physicians cannot use contracting over liability to signal quality so long as physician medical malpractice insurance continues not to be experience-rated. When insurance is not experience-rated, low quality physicians can freely mimic any liability offer made by a high quality physician without suffering a significant penalty. True she may face higher expected liability. But this does not translate into higher expected costs: This liability will be borne by her insurer who will charge her the same premium charged to high quality providers. Accordingly, low quality physicians bear little additional cost if they make the same liability offers as high quality ones and thus will do so in the hope of fooling patients. Patients, knowing this, will attach no signaling value to an offer to bear liability. Accordingly, contracting with physicians will result in an equilibrium where no one imposes liability, even if all parties would be better off if liability were imposed to induce pre-contractual care.\(^{112}\) Thus, the distortions in the malpractice liability insurance market also undermine the effectiveness of contracting over liability rendering its output inefficient.\(^{113}\) Individual physician contracting over liability, thus, cannot be optimal

\(^{111}\) This argument would not apply if contractual liability is introduced in concert with regulation of liability insurance markets that induces experience-rating. Reforms likely to induce experience-rating include those that give injured patients enough information about the cause of their injuries to ensure that victims injured by error do in fact sue. More frequent and accurate claiming would ensure that claiming is a better signal of physician quality. Insurers also are more likely to experience-rate if claims are resolved more quickly. Quicker and better information to patients could help this as well. Finally, it may be necessary to create more distance between medical liability insurers and their clients. See supra note 46.

\(^{112}\) See supra note 102 (patients generally would not be willing to pay to use malpractice liability solely to obtain insurance against losses because the amount providers must charge for this insurance exceeds its expected benefit to most patients). For a discussion of how the present analysis differs from the conventional analysis of warranties see infra note 116.

\(^{113}\) Contracting over liability could address this problem — albeit not the more fundamental problems with signaling -- if high quality providers contracting individually over liability have the incentive — and the ability — to design contracts to redress the problem of non-experience-rated insurance. This is unlikely. One reason that liability insurance is not experience-rated is that claiming rates are so low. Thus, many physicians with no claims are no better than those with one claim, and each is as likely as the other to have a claim in the future. Physicians could fix this problem by providing patients with good information about the causes of their injuries. Yet they have little reason
unless accompanied by reforms that induce experience-rating of insurance.\textsuperscript{114}

2. Inability to Signal with Voluntary Liability

Moreover, even if this problem can be fixed, contracting over liability still would be inefficient if it is accomplished through voluntary liability that guarantees patients the choice of whether to impose liability or not. To see this, it is useful to examine contracting through two-price contracts.

High quality providers cannot use voluntary liability contracts to signal quality because if they attempted to do so low quality providers would mimic their offers at no cost.\textsuperscript{115} Low quality providers can mimic any two-price signaling contract of a high quality producer because a rational patient presented with a two-price contract that offers him a choice between imposing liability and waiving will always select the “no-liability” option. As a result, low quality providers can mimic high quality providers’ contract offers knowing that patients will not select the contract option that would impose liability on them.

To see this, it is helpful to consider whether a rational patient who believes that liability does signal quality would make choices that support signaling through liability. A rational patient presented with a liability contract bases his expectations about provider quality on the aspect of the contract that the provider control. This is the structure of the two-price contract, as given by the additional amount the provider charges if he is to bear liability. The patient thus should select the provider who charges the least additional amount for the “with liability” clause of the two-price contract, as this would signal a small risk of error. A patient who has thus selected his provider, must then chose whether to accept the “liability” clause in the contract or the “no liability” clause. At this point, the choice is obvious. The patient should select the “no liability” clause because he gets no benefit from paying to impose liability.

The patient should select the no liability clause because he has no reason to do so. Currently, medical providers bear little of the expected costs of their own errors either directly, in the form of liability, or indirectly, in the form of reputational sanction. Thus, error disclosure could only hurt them by increasing their costs. Cf. Mello, et. al, supra note 24 (hospitals bear only a small portion of the costs produced by their errors); see note (patients under-estimate differences in provider quality). To date they have not embraced such disclosure and appear unlikely to do so in the future.

\textsuperscript{114} Liability insurance does not present the same impediment to entity-level contractual liability because medical entities either self-insure or buy insurance that is experience-rated.

\textsuperscript{115} Medical providers and patients can use contractual liability to regulate pre-contractual quality only if a patient contracting with a provider that he believes is high quality (based on the providers’ contract offer) is better off selecting the contract clause that imposes liability on that provider than he is selecting the clause that does not impose liability. Because this condition is not met, contracting over liability through two-price contracts does not produce a separating Perfect Bayesian Equilibrium in which consumers correctly believe that providers offering liability at a low price are high quality. See Arlen, supra note 12 (high quality providers cannot use contractual liability to signal quality if consumers can renegotiate liability offers in order to waive liability after contracting); Arlen & Bunting, supra note 69.
pay to impose liability given that a decision to impose liability would not alter the expected quality of the good. It cannot alter the provider’s investment in pre-contractual care because that was determined long ago. Nor would his choice alter the signal of quality because patients can only obtain information about providers from actions that providers themselves take, not actions that patients take. Finally, the patient has little reason to pay to use liability to insure against his losses – or so contractual liability proponents commonly claim -- since liability is not an effective mechanism for insuring patients against the risk of injury given the low expected probability of recovery, relatively high costs of litigating these cases\textsuperscript{116} and the fact that most patients already are insured against most medical costs associated with such illnesses.\textsuperscript{117}

The conclusion that rational patients should waive liability reveals that two-price contracts cannot be used to signal quality, however. For, if patients always

\textsuperscript{116} The conventional analysis of product warranties assumes that consumers would purchase the warranty, even absent the signal of quality, in order to insure against the risk of product defects. As a result, low quality producers offering to bear liability assume that their offers will be accepted. Grossman, \textit{supra} note 11. By contrast, this analysis assumes that patients would not pay to obtain liability from the providers solely to obtain insurance against losses because the expected cost of obtaining this insurance exceeds its benefit. See \textit{supra} note 102. This assumption is consistent with the claims made by proponents of contracting over liability that liability is a poor mechanism for insuring patients (and consumers) against losses. \textit{E.g.}, Epstein, \textit{supra} note 89 (products liability is an inefficient mechanism for providing compensation to consumers injured by product defects).

\textsuperscript{117} In the medical malpractice context, this claim probably is true. Even risk averse patients generally would not benefit from paying medical providers to insure them against non-medical losses resulting from medical error because providers cannot break even on an offer to bear liability unless they charge patients their full expected costs of providing it, including their own expected litigation costs. The price the provider must charge exceeds the amount of compensation a patient would expect to receive by an amount equal to both the provider’s and the patient’s litigation costs. This currently is in the range of 40-50% of every dollar paid. Studdert, et. al., \textit{supra} note 41. Moreover, liability does not currently even significantly reduce the risk of loss, since it is awarded so rarely.

Contractual liability could be used to signal quality if medical providers could develop a form of liability that is sufficiently low cost that patients would value it solely for the insurance it provides. This does not appear likely. Even contracted for liability will face problems associated with under-claiming and under-recovery so long as liability is predicated on fault. The need to show fault also enhances the costs of litigation. Moreover, even “no fault” medical liability would likely be expensive to litigate. The problem is that “no fault” liability for medical malpractice is more costly to litigate than is other forms of no fault liability. In the case of workers compensation, for example, a worker can prevail on a no-fault claim if he is injured in the course of employment. There is no need to determine whether anyone erred. “No fault” malpractice liability for individual providers cannot be based on an equivalently simple finding that a patient died or suffered a reduction in health while obtaining medical care, as this would require providers to insure patients against losses resulting from their diseases. Instead, it must be based on a finding of individual provider error. Litigating these cases would still require expert evidence about whether the providers’ action did or did not constitute medical error. The administrative costs associated with this litigation would likely still be significant.

\textsuperscript{117} But cf. David U. Himmelstein, et. al., \textit{Illness and Injury As Contributors to Bankruptcy}, HEALTH AFFAIRS (2005) (analysis of personal bankruptcy filers found that approximately half cited medical causes; many of these were people who had insurance at the onset of illness but lost coverage after becoming seriously ill).
select the “no liability” clause in a two-price contract offered by apparent high quality providers, low quality providers can make the same offers as high quality providers confident that the end result will be a contract that does not impose liability. As a result, high quality providers will not use liability to signal quality. Patients and providers thus cannot use contracting over liability to regulate pre-contractual care.

3. Signaling Pre-Contractual Quality

The conclusion that patients waive liability can be easily illustrated using our numerical example. Consider a physician with risk neutral patients. Assume that the physician is either low quality (with a 1 in 10 risk of error) or high quality (with a 1 in 100 risk of error).\(^{118}\) Assume that error would cause a $1,000 loss to one patient. Assume that the patient selects the physician who offers to assume liability for the amount that a high quality provider would charge, which is $10.\(^{119}\) Assume that a high quality provider charges $30 for services alone. Assume that the patient must pay $1 to bring a suit.

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<th>Patient Believes Signal</th>
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<td>Contract Clause</td>
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<td>No Liability</td>
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<td>Liability</td>
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The patient who believes that the contract offered signals that the provider is high quality thus has no reason to impose liability. Liability does not alter the quality of care; all it does is require him to pay to obtain insurance whose cost exceeds its benefit.\(^{121}\)

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\(^{118}\) Whether a physician is high or low quality depends on whether she spent $300 on care prior to meeting the patient. This investment is unobservable.

\(^{119}\) \(1/100 (\$1000) = \$10\)

\(^{120}\) The patient pays expected accident costs of $10 with or without liability. He pays them directly without liability. He pays them through a higher contract price with it. For a discussion of liability and market prices when liability regulates market relationships see Steven Shavell, *Strict Liability Versus Negligence*, 9 J. LEGAL STUD. 1 (1980).

\(^{121}\) One of the arguments contractual liability proponents have made against mandatory tort liability is that it is an inefficient vehicle for providing insurance to patients (and consumers). See, E.g., Epstein, *supra* note 116. This is likely true. Malpractice liability nevertheless may be welfare enhancing if it is an effective as a tool for deterring excessive risk-taking. What the present analysis reveals is that when malpractice liability is a potentially effective deterrence, then contractual liability proponent’s argument that it is not a cost-effective mechanism for providing insurance operates to undercut their claim that patients and providers can achieve the deterrence role as effectively through contract as they can through tort. Contractual is not an effective way to regulate pre-contractual care in these circumstances.
This conclusion that patients would not impose liability when they believe they are contracting with high quality providers implies that high quality providers cannot use liability to signal quality. The reason for this is that low quality providers cannot costlessly imitate the offers of high quality providers, confident that any patient who believes the signal will elect the no liability option. In this situation, it is not possible for patients and providers to use individual contracting over liability through two-price contracting to provide a credible signal of product quality, and thereby regulate pre-contractual care.122

E. COLLECTIVE ONE-PRICE CONTRACTS WITH COMMITMENT

The preceding analysis thus reveals that contracting over liability between individual physicians and patients is not optimal whenever contracting occurs in a form that gives patients a choice to reject liability at the moment of contracting. This form of contracting distorts patients’ incentives away from the optimum, causing them to waive liability even when it is not optimal for them to do so. As a result, the choice that individual two-price contracting over liability grants patients is not a choice that benefits them. Those patients who can benefit from malpractice liability are potentially worse off when granted a choice than they would be under liability imposed by the state.

Many of the contracting problems discussed above result from the use of two-price individual contracting to ensure that each patient has a constrained choice of contracts. This unfettered choice is welfare reducing because patients at the moment of contracting are not able to exercise this choice in a form that maximizes their welfare. They are not able to coordinate decisions with other patients. They are not able to bind themselves, pre-contract, to make the choices regarding liability that would enable providers to signal quality. Contractual liability thus cannot both be efficient and allow each patient complete choice to contract with any provider for the liability terms they prefer.

Certain forms of constrained contracting could ameliorate these problems.123 For example, a rule under which each provider is required to commit to offer the same liability clause to all their patients (e.g., no liability for all or liability for all) – with no variation across patients – would reduce the collective action problem and also enable medical providers to use liability to signal quality. This mechanism would mute the collective action problem because it would eliminate free-riding and force collective contracting over quality. When all patients must select the same option, no patient can obtain the benefit of a “liability” clause, without also electing to pay for that clause as well. It also would promote signaling because it prohibits renegotiation of liability contracts, thereby preventing low quality providers from offering to assume liability in the expectation of obtaining a waiver. As a result, it

122 For a discussion of signaling through one price liability when patients can negotiate with providers at the moment of contracting see Arlen, supra note 12; Arlen & Bunting, supra note 69.

123 But see infra Section IV.A showing that problems still would exist.
permits high quality providers to use liability to signal quality because low quality providers required to actually bear the cost of liability cannot profitably offer to bear liability on the same terms as high quality providers if required to use take-it-or-leave-it contracts that ensure that these offers actually result in liability being imposed.124

This raises the question of whether it is possible to induce optimal contracting through some form of collective contracting under which providers, not patients, decide whether liability will be imposed on the provider? And, if so, what form should this contractual liability take? This part answers the second question. The first is left for the next section. There are two basic forms of collective contractual liability with commitment. The most obvious form is individual contracting between patients and providers at the point-of-service through standard form, uniform, liability contracts that apply to all patients and are non-negotiable. We previously discussed this form, however, and concluded that this form of contractual liability is not efficient because point-of-service contracting over medical care is plagued by problems arising from medical duress, lack of patient capacity (if very ill), and high search costs that undermine contracting even when patients can estimate how imposing liability affects the expected quality of any given provider.125 Because of these concerns, and others,126 this form of contractual liability cannot be relied upon to produce optimal contracting over liability. Accordingly, the present analysis turns to the question of whether it is possible to induce optimal contracting over liability through a regime of entity level contracting over liability designed to

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124 Specifically, this would remove the time-inconsistency problem that otherwise plagues contracting over liability to govern pre-contractual care. There is a time inconsistency problem when the liability rule the patient would want pre-contract, before the provider invests in pre-contractual care, differs from the rule that is in his best interests post-contract, once that investment is made.

125 See supra Section II.B. Also, there are reasons to worry that this form of contracting will be more vulnerable to side deals, because medical providers are able to make contracts that are non-renegotiable when contracting occurs at the point of service. Providers cannot use one price contractual liability to regulate either collective good or pre-contractual care unless they can commit not to renegotiate an offer to accept liability with any individual patient who claims to prefer a no liability contract. See Arlen & Bunting, supra note 69 (Absent an ability to credibly commit, providers cannot signal quality with one price contractual liability because most patients have an incentive to renegotiate into a no-liability contract). Renegotiation is a particularly important issue for medical malpractice because patients and providers can easily renegotiate initial liability offers because they deal directly with each other at the moment of contracting. Patients in receipt of an offer to bear liability have an obvious incentive to negotiate with the provider to relieve the provider of liability in return for paying a lower price whenever liability operates to regulate either collective goods or pre-contractual care. Both parties would benefit because liability has little or no effect on quality in this situation, and waiver enables them to avoid the administrative costs of imposing liability for compensatory purposes.

126 Moreover, this form of contracting would not address the final problem with individual contractual liability: Insured patients do not have optimal incentives to contract over liability because they only bear a portion of the losses caused by error since their insurer must pay for the added medical expenses. This is better accomplished through entity-level contracting than through individual contracting.
ensure that contracting takes place long before the patients need to obtain medical services.

IV. ENTITY-LEVEL COLLECTIVE CONTRACTING WITH COMMITMENT

This section examines entity-level contractual liability, focusing on proposals to impose default malpractice liability for all medical errors on Managed Care Organizations (MCOs), and then permit them to contract over the form that liability should take with both patients and other providers (such as hospitals).

The present analysis focuses on a form of MCO contractual liability designed to ameliorate the problems of collective action and suboptimal signaling that arise under voluntary contracting with individual providers. Specifically, the present section examines MCO contractual liability under which each MCO creates a network of medical providers who all accept the same liability plan, and who each agree to be governed by that liability contract with respect to all of their patients.

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127 MCOs now cover 70% to 98% of all Americans with health insurance. Glied, supra note 79, at 708-10. This article uses the term MCO to refer to any plan that uses either financial incentives or pretreatment utilization review to attempt to influence treatment cost, regardless of the plan's official designation as an MCO, Health Maintenance Organization (HMO), or Blue Cross plan.

128 Havighurst, Health Care Choices, supra note 5; see Danzon, supra note 5 (discussing the benefit of contracting out through MCOs).

Other similar entities capable of influencing care and coordinating contracting include hospitals and large physician providers groups. This Article focuses on MCOs in discussing contracting out through a large entity because patients are in a better position to enter into contracts that coordinate care, financing, incentives (sanctions) across most of the providers they are likely to deal with through MCOs than hospitals. See, e.g., Havighurst, Health Care Choices, supra note 5 (logic points to making the integrated health plan, and not the hospital, primarily responsible for the quality of care, including contracting regarding liability); Havighurst, Vicarious Liability, supra note 5; Sage, supra note 5, at 163 (discussing MCO channeling liability and quality control through MCOs is superior to channeling it through hospitals); Glied, supra note 79, at 725 (same); Arlen & MacLeod, supra note 2, at 1995-96 n. 221 (same); see Danzon, supra note 32, at 1382 (arguing that imposing contractual liability on MCOs offers the providers the right incentives to contract out of liability and remedies the problems arising from waiver at point of service). But see Abraham & Weiler, supra note 5, at 393-94 (arguing for contractual enterprise liability for hospitals). The arguments in this article about the problems associated with contractual liability also apply to contractual liability implemented through hospitals, physician provider groups or individual physicians.

129 Thus, the present analysis does not focus on existing proposals for MCO contractual liability, because they either advocate unfettered contracting between MCOs and patients over liability or encourage two-price contracting, and thus could lead to suboptimal contracting that is subject to the collective action and time-inconsistency problems discussed above. MCO contractual liability is subject to both collective action and time-inconsistency problem if MCOs allow each provider to negotiate different liability contracts to govern different patients (whether served by that MCO or by another one). Accordingly, two-price MOC contracting (under which each patient can chose to obtain services from any given provider network either with liability imposed for malpractice or without) is inefficient.
(both in the plan and out). To focus on the structural features of MCO contracting, this section assumes that patients are sufficiently well-informed to correctly evaluate whether it is in their best interest to select a plan that imposes liability or one that does not.

This section shows that this form contractual liability is superior to individual contractual liability. It also reduces the previously identified contracting problems produced by collective goods and time-inconsistency. Nevertheless, even this form of contractual liability cannot be relied upon to produce optimal reform through contract (even under the favorable assumptions discussed above). First, analysis of this form of contractual liability reveals that it is far from clear that the medical system would benefit from variation in the standard of care. Second, this form of liability cannot operate as a full substitute for tort reform because it would not affect the millions of patients who are either uninsured or insured through Medicare. Finally, and more fundamentally, even MCO subscribers contracting with MCOs over liability will not contract for optimal liability to govern their medical providers because this form of contracting is plagued by problems caused by incomplete contracts and hidden information.

A. ADVANTAGES OF CONSTRAINED MCO CONTRACTUAL LIABILITY

Most proponents of contracting for malpractice liability favor reforming malpractice liability to place malpractice liability for medical error on large medical entities, capable of affecting health care quality both directly and through the incentives provided to individual caregivers to invest in quality (such as sanctions and monitoring). The leading candidates for entity-level malpractice liability are MCOs. Up to this point, these proposals are a form of direct malpractice liability reform in that they require courts or legislatures to intervene to impose greater liability on entities than they currently bear. These proposals nevertheless are contractual in that they would permit entities to contract with patients to alter or eliminate this liability.

MCO contractual liability is superior to individual contractual liability for many reasons. First, it shifts default liability to the medical entities, which is beneficial since entity-level liability is superior to individual liability for malpractice. Second, patients contracting annually with MCOs are less likely to agree to inefficient waivers as a result of duress because patients contract with MCOs long before they

[130] An MCO could offer a “liability” plan and a “no liability” plan, but only by creating two plans with a completely independent set of providers.

This form of contractual liability has the advantage of eliminating collective action and time-inconsistency problems. Nevertheless, it will not be attractive to those who value choice, in and of itself, because it precludes a patient from contracting for a liability waiver in return for a discount with any provider who is in a “liability” network.

[131] Havighurst, supra note 5; Danzon, supra note 5; see also Abraham & Weiler, supra note 5 (hospitals); Mello & Brennan, supra note 5 (hospitals).

[132] See supra Section I.D.
need medical care. Thus, patients face no risk of feeling pressured to waive liability in order to please a provider from whom he needs care. Patients also are better able to make decisions when they are healthy than when they are seriously ill and seeking immediate care. MCO contracting also is superior to individual contracting because patients contracting with individual physicians often cannot easily compare the contract offers by different physicians as these are not easily accessible (for example, online). By contrast, patients contracting with MCOs do so during open enrollment. During open enrollment, each patient is presented with a summary of each health plan’s contract offer, and has the opportunity to compare these terms, over several weeks, in concert with other patients facing the same choice.\footnote{133}

MCO contractual liability also reduces the structural problems associated with individual two-price contracts discussed above. First, MCO contractual liability avoids the distortion caused by patients who are insured. Patients are contracting with the entity that they obtain health insurance from and thus can enter into liability contracts that directly affect their health care costs. MCOs contracting with patients would create integrated insurance and liability contracts under which premiums adjust to reflect the amount of liability imposed on providers. MCOs thus appear better able to ensure that patients who impose a form of liability expected to reduce health care costs obtain the full benefit of doing so, through lower premiums charged for insurance.\footnote{134}

Second, MCO contractual liability can reduces the collective action and time-inconsistency problems. MCOs can contract over liability with patients without a direct free-rider problem so long as MCOs contract through integrated networks of providers each of whom commits to employ the same liability contract for each and every patient. Patients can no longer free-ride on the liability choices of others when each provider has the same liability term for every patient because the only way the patient can obtain the benefit of incentives created by expected liability imposed by other patients is to pay to impose it himself.\footnote{135}

\footnote{133} Although it has been suggested that MCO contracting may be better informed than individual contracting because patients may get some benefit from the inter-mediating role of employers in selecting health plans, see Epstein & Sykes, supra note 53, employers superior information will not benefit employees unless the market ensures that employers benefit from giving employees an optimal health plan. Employers generally do not benefit from selecting an optimal plan, however, but instead benefit from selecting the plan that employees value most. This implies that employers will select a suboptimal plan that reduces cost, at the expense of desired quality, as long as employees focus on cost, over quality, in making plan choices because they have good information on costs and poor information on quality. Arlen & MacLeod, supra note 2, at note 143; see Sherry Glied, The Employer-Based Health Insurance System: Mistake or Cornerstone?, 37, __, in POLICY CHALLENGES IN MODERN HEALTH CARE (David Mechanic, Lynn Rogut, David Colby, and Jim Knickman, Eds) (2005)(studies of plan selection typically find that employers mimick the behavior of most workers and place a lot of weight on price considerations and pay less attention to quality measures).

\footnote{134} E.g., Danzon, supra note 32.

\footnote{135} Moreover, while patients deciding whether to contract into a network imposing liability for all patients still does internalize the external benefit of that choice for other patients, they nevertheless do internalize the benefit of the additional incentives provided by other patients’ decisions to impose
Finally, MCO liability contracts also can be designed to provide patients with better incentives to use liability to regulate pre-contractual care. High quality medical providers can signal quality by electing to join a network of providers that imposes liability because, by the terms of these networks, each provider in the network is required to accept liability for all patients. This implies that a low quality provider cannot mimic the high quality providers’ contract in anticipating that the patient will waive liability, because once a provider has joined a “liability network” she is not permitted to accept waivers. MCO contractual liability can obtain the benefits of commitment, while also giving each patient the option to impose liability, by requiring each employer to guarantee each employee the ability to elect an insurance plan with a network of providers that is governed by malpractice liability for medical error. 136

Thus, it seems that MCO contractual liability is superior to contracting over liability through individual providers. 137 Nevertheless, MCO contractual liability does not present an easy solution to the problem of tort reform. Even if patients are informed about the costs and benefits of contracting, this form of contractually liability is not an effective substitute for tort reform. First, analysis of this form of contractual liability reveals that it is far from clear that the medical system would benefit from variation in the standard of care. Second, it does not obviate the need for tort reform because it would not affect a substantial percentage of the population. Finally, it cannot be used to reform malpractice to make it more effective because this form of contracting also does not create optimal decisions to impose liability. Instead, it distorts patients’ incentives in the direction of waiving liability even when it is welfare enhancing to have liability imposed.

B. INITIAL ISSUES

Although entity-level contractual liability is superior to individual contractual liability, it does not eliminate the need for effective reform of malpractice liability. Nor does it completely eliminate the coordinate problems associate with contracting over collective care.

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136 This likely would require government intervention given that, at present, 48% of employees offered insurance are only offered one health plan. See Joseph Newhouse, Reimbursing Health Plans and Health Providers: Efficiency in Production Versus Selection, 34 J. ECON. LIT. 1236, 1240 (1996).

137 Nevertheless, it should be observed that this form of contracting at best only obtains a portion of the “heterogeneity” benefits associated with unfettered individual provider contracting. Because this form of contractual liability requires each provider to elect a single form of liability to govern all patients, patients will only have a true choice of liability rules if they are in areas with multiple providers. Patients in areas with only one physician or one hospital will not have an effective choice. They will be bound by the liability choice of the monopoly provider, as influenced by the local demand for quality. Advocates who believe that the goal of contractual liability should be free choice, in and of itself – independent of social welfare – will not find this form of contractual liability to be as attractive as individual provider contracting.
Limited Scope and Restricted Heterogeneity

MCO contractual liability, even at its best, can only be a partial substitute for tort reform because it would not apply to many people who need medical care. The state thus would remain involved in determining liability for these patients. Because of collective goods issues, this choice would likely affect the outcome of private contracting.

Although most privately-insured patients are insured through an entity that operates as an MCO, a substantial portion of the population is not privately insured. At present, approximately 16 percent of the overall population currently is uninsured. In states such as Florida, Texas and New Mexico, more than 20 percent of the population is uninsured. Moreover, millions more are covered by government health insurance programs; indeed, government insurance is particularly prevalent among the group most likely to demand medical care services, the elderly. Indeed, Medicare alone covers 41.6 million people and accounts for 22% of the nation’s health care spending.

None of these patients is free to determine malpractice liability by contracting with their insurer. The former patients do not have an insurer. The latter in effect are required to accept the contract terms imposed on them by the federal government. Accordingly, MCO contractual liability cannot be a complete solution to the issue of tort reform. Governments must address the issue of tort reform, at least to the extent that they want to protect the interests of these people (by ensuring that tort liability best serves their interests). An important political question for contractual liability proponents, that is beyond the scope of this article, is whether governments are more likely to make this decision properly when deciding on a rule that is paid for out of general tax revenues (in effect) but only benefits the poor and the old, or when deciding on a rule whose effects are borne by all in the jurisdiction.

Collective Action and Coordination Problems

Moreover, entity-level contracting over liability would only reduce collective action problems. It would not eliminate them. Most proponents of contractual liability envision that contracting over liability would involve contracting about the

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138 See supra note .
139 Health Care and the States: The Federalist Prescription, 27-28 THE ECONOMIST (January 13, 2007) (discussing 2005 data from the U.S. Census Bureau). States where 15.1-20% of the population is uninsured include California, Georgia, Oregon, Nevada, Utah, Colorado, Oklahoma, Missouri, Arkansas, Louisiana, Mississippi, South Carolina, North Carolina and West Virginia. Id.
140 SOCIAL SECURITY ADMINISTRATION, ANNUAL STATISTICAL SUPPLEMENT TO THE SOCIAL SECURITY BULLETIN, 2005, 5 (Feb. 2006). In addition, Medicaid covers 49.8 “unduplicated recipients.” Id.
141 See generally BARRY FURROW, ET. AL., HEALTH LAW, at 537 (2nd ed., 2000) (discussing spending as of 1997). The vast majority (83%) of Medicare spending occurs through government-controlled insurance programs, and not through private insurance (Plan C). Id.
standard of care to govern medical care. Yet contracting over liability that produces substantial variation in the standards governing the goal of medical care would create a difficult coordination problem for medical providers because the provision of medical care involves network effects. Medical care benefits from uniformity in the stated standard of care because this facilitates the training of physicians both in medical school and during their residencies. Medical schools and the teaching hospitals currently can teach standard protocols — and medical researchers can conduct research on “best practices” — because there is considerable agreement about the desired standard of care. As a result, in theory physicians are supposed to be able to obtain training in hospitals across the country based on the theory that all hospitals are teaching physicians to provide the care that patients at other hospitals would want. Medical research on treatment effectiveness also benefits from a shared understanding of what is the appropriate standard for determining whether a treatment should be used.

This national system would be challenged, however, if contracting resulted in dramatically different standards of care in different parts of the country – or, even in different hospitals in the same city. Physicians trained in hospitals whose patients contracted to receive minimal care would be taught significantly different treatment protocols than those trained in hospitals whose patients are entitled to treatment that guarantees the best outcomes. This would present a challenge for a national system for training physicians. Moreover, as a result, patients still would be subject to external costs from the contracting choices made by other patients. Hospitals training residents cannot practicably train residents to adhere to many different standards of care. Part of the goal of training, after all, is to teach residents to make quick, accurate, automatic decisions when presented with a patient with particular symptoms. Consequently, teaching hospitals would need to develop uniform standards within the hospital, likely based on the dominant standard of care in the contracts of the patients to be served. As a result of this, however, decisions by patients to contract for a low standard of care could affect the care provided to other patients by affecting training.

C. ADVERSE SELECTION

[This section is still in progress]

Beyond this, even when patients are insured, MCO contractual liability is not an effective system for ensuring that insured patients are protected by malpractice liability when it benefits them. This part shows that patients contracting over liability with MCOs will not impose it optimally because MCOs will require most patients to pay substantially more for the right to contract into liability than it costs the MCO to provide the additional quality for this patient (or even for an average patient). Thus, patients required to contract over liability will not be given an optimal choice of whether to pay the cost of liability in order to get the resulting quality. They are

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142 E.g., HAVIGHURST, HEALTH CARE CHOICES, supra note 5.
given an inefficient choice of whether to pay a much higher cost. For many patients, the resulting price premium will drive them to a no liability network.

MCOs must charge patients more for the higher quality “liability” network than it costs the MCO to provide this quality to most patients – or even to the average patient – because contracting over liability creates selection effects. As previously discussed, patients differ in their demand for quality; consequently, they differ in their demand for plans that impose liability on providers. One reason they differ is wealth; another reason they differ is that they differ in their health. All else equal, patients are willing to pay a higher annual premium for the right to high quality care over that year if they who expect to need medical services frequently (or to need more complicated medical services) than they are if they expect to need little or not care at all. Thus, the more expensive high quality liability plan will attract a higher portion of high demand patients than are in the general population; the less expensive lower quality no liability plan will attract a disproportionate number of healthy patients who see no need to pay a premium to obtain higher quality care.143

Recognizing that the high quality plan will attract a disproportionate number of high demand subscribers, the MCO must price the plan accordingly. Thus, it must set the premium differential between the high quality liability plan and the lower quality no liability plan at an amount that exceeds the additional cost of providing this higher quality to an average patient. Instead, the premium must be based on both the cost of the higher quality plus expected cost of the greater demand for health care services of the average patient who prefers this type of plan. This latter effect places enormous upwards pressure on the plan’s price because patients who are chronically ill spend substantially more on health care than those who are not. As a result of this, average patients will not be able to find a liability plan priced to reflect the average cost of providing higher quality care to the average patient. Instead, they will face a choice between waiving liability in return for a lower priced low quality plan, and paying a substantial premium to impose it where much of the additional premium is going to pay the large health care costs of the sicker than average people who dominate this plan. This substantial premium – that far exceeds the costs of serving these patients – can be expected to drive most average patients out of the liability plans, even when they value higher quality at more than it costs providers to deliver it to them.144

This “adverse selection” effect has two consequences. First, as a result of adverse selection, public officials cannot rely on private contracting over liability to

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143 See David M. Cutler & Richard J. Zeckhouser, The Anatomy of Health Insurance, 563, 607 in 1A HANDBOOK OF HEALTH ECONOMICS 708-10 (Anthony J. Culver & Joseph P. Newhouse eds., 2000) (“Generally, the sick are drawn to more generous plans than are the healthy.”).

144 For a discussion of how MCOs improve control of health care spending on the one hand, while exacerbating adverse selection problems on the other see Joseph Newhouse, Reimbursing Health Plans and Health Providers: Efficiency in Production Versus Selection, 34 J. ECON. LIT. 1236 (1996); see also Richard G. Frank, et. al., Measuring Adverse Selection in Managed Health Care, 19 J. HEALTH ECONOMICS 829, 835 (2000) (numerous studies find evidence of selection effects in that patients who join HMOs tend to be healthier than those who do not).
ensure that patients use the imposition of liability to obtain the quality of care that they are willing to pay for because average patients required to contract over liability will face a plan pricing structure that induces them to waive liability even when patients would be better off were liability imposed by fiat (thereby avoiding any signal). Thus, contracting over liability is not an effective mechanism for reforming the tort system, if a goal of tort reform is to ensure that patients who value liability are able to obtain its protections.

Second, contracting over liability may in fact harm all patients by pushing most patients into the lower quality plan. As average patients leave the higher quality plan, it will become more expensive. This will place huge financial pressure on the ill patients, who often cannot afford a premium that reflects the expected cost of their own treatment needs. The lower income ill patients thus also will elect the lower cost plan – with the result that the average patients end up with a lower quality plan that may not be much less expensive than the plan they would have had under mandatory tort liability (where all patients are pooled together). Moreover, average patients are further harmed because many would prefer that sick and healthy patients be pooled if they expect to remain in the pool over time. Patients would prefer this because they want to insure not only against their medical costs this year, but also against the risk of becoming a high priced patient. Pooling in effect allows them to spread the cost of their expected higher medical expenses across time, because healthy and ill are charged the same amount.

Illustrative Example
To see the problems presented by adverse selection, consider the following example. Assume that there are 100 patients who in total will consume $100,000 in health care resources if there is no liability and $110,000 with liability (given greater care). Thus the average per person cost of care $1,000 without liability and 1,100 with it. The per person cost of the safety liability produces is $100.

Assume that liability increase outcomes by 50% and further assume that a normal patient is willing to pay $1,000 for care without liability and $1,700 with it. This implies a willingness to pay for safety of $700. If medical care is priced at its average cost, these consumers thus get a consumer surplus 0 without liability but $600 with it.

Assume, however, that 10% of the population is chronically ill and that these people consumer 75% of the total health care dollars. As a result, the top 10 people spend $75,000 or an average of 7,500 per person. Assume 80% have ability to pay for safety of 7,000; the rest can pay their expected health care costs. The costs of serving the other patients is only 25,000/90 = 277.

Consider first what happens if the state imposes malpractice liability and the MCO has not other way to separate patients by type. In this case, the MCO charges an average price of $1,100 to insure its patients. The “normal patients” end up with consumer surplus of $600 and are better off than they would be without liability. The ill patients do even better.

Now assume that we move to a world of contractual liability and we have a
standard plan where the employer makes employees bear the full cost of any higher quality plan. Assume, initially that an MCO that offers a no liability plan expects only health people to take it. It can charge $277 for that plan. Now consider whether it can charge only $1,100 for the high quality plan. If it does so, the normal patients now face a choice of care with no liability, or paying an additional $823 to get the higher quality. This additional amount exceeds the actual cost of providing this quality to them (and the cost under a pooled equilibrium) because it reflects the fact that the high quality plan has a disproportionate portion of the sick people. Patients faced with a charge of $823 to obtain quality that they attach a value of $700 to will reject this plan. They all will go into the lower quality plan, even though they all would be willing to pay for the quality that liability induces. Thus, contracting over liability creates systematic incentives for patients who are not chronically ill to contract out of liability even if they would be willing to pay for the additional quality liability produces.

These incentives for healthier people to opt out may produce a “premium death” spiral that results in most ill people electing the lower quality no liability plan. After all, the MCO cannot charge $1,100 for the liability plan if the normal patients opt out of it. Indeed, taking the extreme situation where they all opt out, the MCO must charge $7,500 for this plan, which is the expected cost of treating the patients who would remain in the plan. But this amount exceeds the ability to pay of 80% of the ill patients. These people, thus, also will elect to take the no liability plan. As a result, the normal and 80% of the ill will elect a lower quality plan for which the MCO will now charge $867.145 Even at a price of $867, patients still elect this one because it is superior to the higher quality plan, which is priced at $7,500.

This results in a situation where all patients are worse off with contractual liability. The normal patients end up with a consumer surplus of 133 with contractual liability, whereas they would have obtained a surplus of $600 from mandatory liability and no signaling. The sick in the low quality plan are worse off because they value the higher care more than the $133 price reduction. And the sick in the higher quality plan also are worse off because they now pay more for care.

V. CONCLUSION

Proponents of contractual liability have long argued that states can best effect reform of medical malpractice by simply allowing patients and medical providers to determine liability by contract. They have insisted that contractual liability is superior because patients and medical providers will adopt optimal liability contracts, as long as patients are informed. This analysis has implicitly assumed that liability contracts are sufficiently complete to enable patient to optimally regulate all the types of care that matter to them at the moment of contracting. In effect it has assumed that liability procured by contract is an equivalent form of liability to liability imposed by the state. This is not the case.

145 25,000 + 60,000 = 85,000. 85,000/98 = $867
In many situations, malpractice liability imposed by fiat is superior to liability obtained by contract. Malpractice liability is superior to individual contractual liability because malpractice liability is a collective, multi-period, multi-provider form of liability, whereas individual provider liability is not. Patients benefit from the collective imposition of liability because this permits the effective regulation of collective investments in care. Patients benefit from the fact that tort liability spans multiple time periods because multi-period liability can be used to induce medical providers to make durable investments in one period that benefit patients in a future period (pre-contracting care). Individual contractual liability, by contrast, is a very different product. It offers only the right to impose liability individually on a single provider for the duration of the contract. It does not offer patients the right to impose collective, multi-period liability that reaches across patients and time-period; it thus cannot effectively regulate either collective care or pre-contractual care.

Malpractice liability also is superior to MCO contractual liability when most patients can benefit from the use of liability to regulate care. Malpractice liability is superior because many patients do not derive a net benefit from being granted the right to contract with MCOs over liability. Patients who want out of liability may benefit. But those who want liability do not, because they cannot elect to obtain liability without signaling to their insurer that they are more likely than average to be a high risk, expensive, patient. Unable to pay the price of this signal, most patients allowed to choose MCO liability contracts will find themselves forced to select the contract that signals low risk. This is the no liability contract.

Accordingly, granting patients the right to contract with providers for liability may not make them better off by increasing patient choice. Instead it alters patient choice, replacing their ability to be governed by malpractice liability with the right to contract for a narrower, potentially less valuable, liability regime. This altered choice creates a systematic bias in favor of waiving liability, even when patients would be better off having liability imposed. Given this, contractual liability is an effective way to reduce the scope of malpractice liability, but it is not an effective mechanism for reforming medical malpractice laws to make them more effective. States whose patients could benefit from the use of liability to regulate quality could better serve their citizens by reforming malpractice laws directly.