New York University School of Law

New York University Law and Economics Working Papers

Year 2008

Paper 123

Contracting Over Malpractice Liability

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Abstract

Proponents of contractual liability assert that contracting is superior to malpractice because patients will select the rules that maximize their welfare so long as contracting is voluntary and the parties correctly estimate the costs and benefits of imposing liability. This article analyzes the claim that patients have optimal incentives to contract into liability when they are informed about the consequences of liability. It shows that contractual liability is inefficient, even when patients are informed, because contracting itself is not an optimal mechanism for imposing liability because patients derive less benefit from imposing liability by contract than they could obtain from liability imposed by the state by fiat. Specifically, this article examines the two plausibly-efficient forms of contractual liability: individual negotiable contractual liability and MCO contractual liability. It shows that neither provides patients with sufficient benefits to induce optimal contracting over liability.

Patients engaged in individual negotiated contracting with medical providers at the point of service do not have optimal incentives either to adopt malpractice liability reforms or contract around reforms adopted by the state because malpractice liability is designed to confer collective, multi-period, benefits on patients – in the form of investments in safety that benefit many patients collectively both now and in the future. Patients do not derive the full benefit of the collective, multi-period investments produced by malpractice liability when required to impose it through individual contracts. Accordingly, even when contracting is informed and voluntary, patients can be harmed by the introduction of contractual liability because it provides incentives for them to reject liability even when they would be better off were liability imposed by the state. By contrast, collective non-negotiable contracting between patients and Managed Care Organizations) does not face as serious a collective goods problem. But this form of contracting is inefficient because it is distorted by adverse selection. MCOs will charge patients more for liability than is optimal because patients' demand for liability provides a signal of their expected demand for expensive medical services since liability confers the greatest expected benefits on patients likely to need hospital care. Accordingly, contractual liability will not induce even informed patients to impose liability whenever they would be better off were it imposed. Thus, we cannot be confident that states could better serve patients by allowing contracting over liability than they could by adopting effective reforms to malpractice liability and leaving it within the control of the tort system.

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*Norma Z. Paige Professor of Law, New York University School of Law. I would like to thank the following people for helpful comments: Kenneth Abraham, Kevin Davis, Einer Elhauge, Mark Geistfeld, Clark Havighurst, Keith Hylton, Richard Hynes, Marcel Kahan, Ehud Kamar, Lewis Kornhauser, Reinier Kraakman, Shmuel Leshem, Kristin Madison, Michelle Mello, Geoffrey Miller, William Sage, Catherine Sharkey, Steven Shavell, Matthew Spitzer, George Triantis, Rip Verkerke, Katrina Wyman and Kathryn Zeiler. I also received helpful comments from participants at faculty workshops at Harvard Law School, University of Southern California School of Law, Fordham University School of Law, and New York University School of Law, the Health Law Policy Workshop at Harvard Law School and the Law and Economics Workshop at the University of Virginia School of Law. I want to give special thanks to Sherry Glied for numerous helpful discussions. Finally, I would like to thank my research assistant Xin Yu. I am grateful for the financial support of the D'Agostino/Greenberg Fund of the New York University School of Law.

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Each year, more than a hundred and fifty thousand people are killed and more than a million are injured by medical errors committed both by individual physicians and hospitals.¹ These errors cause enormous human suffering. They also are expensive. Medical error is a serious problem that causes enormous human suffering and contributes significantly to increased health care costs. It also is largely avoidable. Studies suggest that physicians and hospitals could dramatically reduce the risk and consequences of medical error by making additional cost-effective investments in patient safety. But patient safety cannot be left to self-regulation by the medical profession alone. Medical providers will not invest adequately in patient safety unless they have strong financial incentives to do so.

¹ Patricia Danzon, *Liability for Malpractice*, Chap. 26, in A.J. Culyers & J.P. Newhouse, ed., HANDBOOK OF HEALTH ECONOMICS Vol 1, at 1339, 1351 (2000) (evidence suggests patients suffer more than 150,000 iatrogenic fatalities annually, more than half of them attributable to medical negligence); see infra note 22.

Malpractice liability provides this financial incentive. Malpractice liability imposed on all providers causally responsible for error can improve patients' welfare because it provides medical providers with incentives to undertake cost-effective investments in quality and avoid non-effective ones. In a well-designed system, medical providers will make cost-effective investments that reduce the total cost of caring for patients (including liability costs).²

At present, however, medical malpractice liability does not adequately regulate patient safety. It must be reformed. This raises two questions: (1) what is the best process for reforming the system and (2) what provisions should be included in any state-adopted reforms? Proponents of contractual liability assert that contract holds the answer to both questions. The strongest proponents of contracting over malpractice liability claim that states can achieve optimal liability reform by simply allowing patients and medical providers to determine the liability rules that govern their relationship by contract.³ States need not adopt any other reforms. More moderate proponents of contractual liability want states to adopt reforms – such as, broad liability for medical entities – but say that these reforms should be transformed into default rules by the addition of a provision permitting patients and medical providers to contract over liability.⁴

According to its proponents, contractual liability has two advantages over malpractice liability. First, contractual liability is superior to malpractice liability because it places control over liability rules with patients and medical providers. This allows patients and providers, who have better information about how much patients are willing to pay to receive higher quality care, to determine the liability rules that optimally balance patient safety and health care costs. Proponents argue that, when contracting regimes are properly designed, patients and medical providers will use their superior information to select socially optimal rules. This claim is predicated on the assumption that patients have optimal incentives to contract over liability whenever they bear the full costs and benefits of imposing liability and are informed about the costs and benefits of malpractice liability.

Proponents claim that contractual malpractice liability also is superior to malpractice liability because it allows liability rules to vary across patients. Variation in the standard of care imposed by liability benefits patients, they argue, because patients do not all want the same quality of medical care. Malpractice liability forces all patients to accept the same standard of care. By contrast, contractual liability allows each patient to contract

² See *infra* Section I.

³ Richard Epstein, Contractual Principle Versus Legislative Fixes: Coming to Closure on the Unending Travails of Medical Malpractice, 54 DEPAUL L. REV. 503 (2005).

⁴ E.g., Clark C. Havighurst, HEALTH CARE CHOICES: PRIVATE CONTRACTS AS INSTRUMENTS OF HEALTH REFORM 266 (1995) (arguing that there seems "to be a strong inducement for consumers and providers to jointly discover and agree on rules and procedures that reduce the uncertainty, complexity and volume of litigation"); Richard Epstein, *Medical Malpractice: The Case for Contract*, 1 AMERICAN BAR FOUNDATION RESEARCH JOURNAL 119 (1976) (contractual physician liability); Glen O. Robinson, *Rethinking the Allocation of Medical Malpractice Risks Between Patients and Providers*, 49 LAW & CONTEMP. PROB. 173 (1986) (contractual liability for physicians); Richard Epstein, *Medical Malpractice, Imperfect Information, and the Contractual Foundation for Medical Services*, 49 LAW & CONTEMP. PROB. 201 (1986); Patricia M. Danzon, *Tort Liability: A Minefield for Managed Care?*, 26 J. LEGAL STUD. 491 (1997) (limited contractual 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, *Private Reform of Tort-Law Dogma: Market Opportunities and Legal Obstacles*, 49 LAW & CONTEMP. PROB. 143 (1986).

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. Proponents assert that contractual liability does not adversely affect the patients who would have benefited from malpractice liability because they will simply contract into the existing malpractice liability regime. Thus, granting patients the choice of how much liability to impose hurts no one and can benefit many, it is claimed. Given these asserted advantages, contractual liability because patients and providers will only contract out of liability if state-imposed liability is suboptimal. Beyond this, some proponents suggest that states can avoid the politically difficult task of reforming malpractice liability by simply allowing patients and providers to determine the contours of malpractice liability by contract.⁵

Most contractual liability proponents recognize that the arguments for contract do not apply equally to all forms of contracting over liability. Contractual liability is necessarily superior to malpractice liability if, but only if, patients have optimal incentives to contract over liability. Patients have optimal incentives to contract into liability when patients want to contract into the same liability regime that a benevolent state would impose by fiat, if acting on patients' behalf.⁶ Contractual liability does not satisfy this requirement if three conditions are met. First, patients must obtain the same benefit when they impose liability by contract as they would obtain if the state imposed their preferred liability regime by fiat. Second, patients must face the same costs imposing liability by contract as they would bear if the state imposed liability by fiat. Finally, patients must be informed about the existence and impact of contractual liability terms.⁷ Proponents of contractual malpractice liability claim that contractual liability can be designed to satisfy these requirements. But they have never shown that this is the case. The time is ripe to undertake this analysis.

Proponents (as well as most opponents) generally assume that liability imposed by contract confers the same benefits on patients as an equivalent liability rule imposed by the state. Accordingly, they conclude that contracting is optimal as long as patients are informed about the costs and benefits of imposing liability and can impose liability without bearing excessive costs. Most contractual liability proponents recognize that not all forms of contracting satisfy these requirements. Specifically, these requirements require that we reject proposals to permit individual medical providers to present patients seeking medical care with non-negotiable liability waivers because these conditions violate the requirement

⁵ See sources cited in notes 3 and 4; see also Keith Hylton, *Agreements to Waive or to Arbitrate Legal Claims: An Economic Analysis*, S. 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 (1997-1998) (arguing that issues of inadequate expertise of both physicians and MCOs should be addressed through tort law, but resource issues should be addressed through contract). For a 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).

⁶ See Robinson, *supra* note 4, 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 them as would be achieved through paternalistic intervention").

⁷ Patients can be sufficiently informed to contact over liability even when liability is needed to address patients' imperfect information about provider quality because patients can evaluate the costs and benefits of imposing liability even when they do not know enough about the quality of individual providers for markets to function efficiently without liability.

that patients can obtain liability if they are willing to pay the costs associated with its imposition. This requirement implies that contracting is optimal only if the cost to a patient of imposing liability by contract equals the costs of the care liability would induce plus the costs of providing compensation. Non-negotiable waivers executed at the point-of-service violate this condition because, by definition, a patient presented with a non-negotiable waiver cannot obtain liability by simply offering to pay for it; he must instead bear the search costs associated with seeking a new provider, including the adverse health consequences of delaying care.⁸ Nevertheless, the fact that non-negotiable point-of-service contracts are inefficient does not imply that all forms of contracting are inefficient, contracting proponents assert. Two potential proposals ensure that patients can impose liability if they are willing to pay the costs associated with the care and expected compensation that liability induces. The first is to permit point-of-service contracting between patients and their medical providers only if providers seeking to waive liability are required accept liability if patients are willing to pay the associated costs. The second is to allow Managed Care Organizations (MCOs) to contract with health insurance subscribers over the terms of liability to govern them and their affiliated providers.⁹ These forms of contracting are optimal, proponents argue, assuming, as most proponents do, that patients are sufficiently informed to contract over liability.¹⁰

These arguments for contractual liability have won the day with many malpractice liability scholars, finding particular favor with law and economics scholars.¹¹ Many leading reform proposals incorporate provisions permitting patients to contract over liability with medical providers, either through negotiable (or two-price) contracts or through MCOs.¹² Yet closer analysis of the debate over contractual liability reveals that proponents have never demonstrated the veracity of its foundational claim that these forms of contracting provide patients and providers with optimal incentives to contract into liability. For, proponents have never shown that patients obtain the same benefit from imposing liability by contract as they would obtain from liability imposed by the state.

This article undertakes the first thorough examination of the economic claim that

⁸ For a discussion of other problems with non-negotiable contracting at the point of service see *infra* Section II.C.

⁹ For a discussion of the benefits of contracting through medical entities see, *e.g.*, Danzon, *supra* note 4 (MCO liability should be contractual); Havighurst, *Vicarious Liability, supra* note 4 (supporting contractual enterprise liability for MCOs); HAVIGHURST, HEALTH CARE CHOICES, *supra* note 4, at 171 (same).

¹⁰ Richard Epstein & Alan Sykes, *The Assault on Managed Care: Vicarious Liability, ERISA Preemption, and Class Actions*, 30 J. Legal Stud. 625 (2001) (information problems associated with MCO contractual liability are not significant); see also Alan Schwartz, *Proposals for Products Liability Reform: A Theoretical Synthesis*, 97 YALE LAW JOURNAL 353 (1988) (arguing that mandatory products liability is not necessary because customers do not systematically under-estimate product risks).

¹¹ See *supra* notes 3 & 4. Moreover, there is evidence that courts and legislatures are becoming less hostile to contracting affecting liability. Although courts continue to resist direct contracting over liability, they have changed their approach to mandatory arbitration provisions and are showing an increasing willingness to enforce mandatory arbitration provisions governing malpractice liability, when it appears that contracting was voluntary and informed. Carol A. Crocca, *Arbitration of Medical Malpractice Claims*, 9(a) and 9(b), AMERICAN LAW REPORTS 5th, (2006). This is significant because arbitration not only alters procedure but also alters the rules that govern the basis for and extent of liability. This changed attitude towards medical malpractice arbitration may herald the day when states reconsider other forms of contracting over liability.

¹² See *supra* notes 3 & 4.

patients have optimal incentives to contract into liability through one of these purportedly optimal forms of contracting (negotiated contracting or contracting with MCOs). In contrast with previous analyses, which have focused on the information problems associated with contracting over liability,¹³ this article focuses on the core claim that informed patients will contract optimally into liability because they obtain the same benefits when they impose liability by contract as they would obtain if the state imposed their preferred liability regime by fiat.¹⁴ This article shows that this claim is not correct. Neither of these plausibly efficient contractual liability proposals actually is efficient because neither ensures that patients who contract into liability derive as much benefit as they would from liability imposed by the state.

This article first considers negotiated contracting between patients and providers at the point of service to determine whether this form of contracting provides patients with the same benefit as malpractice liability. Reasons exist to question whether this form of liability creates optimal incentives to impose liability because individual negotiated liability differs fundamentally from malpractice liability. Malpractice liability is imposed collectively on all providers for the benefit of all patients; it also is imposed across all periods. By contrast, negotiated contractual liability is imposed by one patient, on one provider, for a specific period of time. This article shows that these differences matter.

The article examines both incentives to reform malpractice liability and incentives to contract over reforms adopted by the state. Turning first to the issue of contracting for malpractice liability reform, this article shows that patients and providers will not negotiate for optimal malpractice liability reform because a primary goal of malpractice liability reforms to induce physicians and hospitals to make greater "systemic" investments in safety.¹⁵ These investments tend to have three features: (1) they are "collective" in that they benefit many patients, (2) they are "durable," in that they reduce the risk of error for both existing and future patients, and (3) they are discontinuous (or "lumpy") in that the provider cannot make incremental investments, but must make either

¹³ Nevertheless, there are good reasons to be concerned that patients are not sufficiently informed to contract effectively. *See, e.g.*, Mark Geistfeld, *The Political Economy of Neocontractual Proposals for Products Liability Reform*, 72 TEX. L. REV. 803 (1994); Arlen, *supra* note 13; see infra note 78. Rather than join the debate over information problems, this article focuses on the validity of the claim that contracting is efficient when patients are sufficiently informed to contract over liability.

¹⁴ This is the first article to systematically examine whether voluntary contracting over malpractice liability is optimal when patients are informed about the costs and benefits of imposing liability, to the best of this author's knowledge. Previous articles have briefly identified some problems with informed contracting over liability. Jennifer Arlen & W. Bentley MacLeod, *Malpractice Liability for Physicians and Managed Care Organizations*, 78 NYU L. Rev. 1929, 1999-2000 (2003); 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). They did not thoroughly analyze the issue. This article considers the issue in-depth, extending it to consider the claim that patients can achieve optimal reform by contract. This article identifies the problems of allowing care to vary across providers and the collective action problems that would preclude contracting into optimal malpractice reform (over and above those associated with contracting in and out of liability with individual providers). This article also is the first to examine in detail the claim that patients will contract optimally through MCOs, identifying, for the first time, the adverse selection problems plaguing these contracts. The present article examines only contracting over liability and not contracting over the process governing how liability determinations are made (e.g., contracting for mandatory arbitration).

¹⁵ See infra Sections III. A & B and IV.A.

substantial investment (e.g., in equipment) or not investment.¹⁶ Standard malpractice liability benefits patients by using the collective threat of liability for all patients over all periods to induce providers to make cost-effective systemic investments - including investments which are cost-justified only because of their impact on all current patients as well as future ones. This implies that malpractice liability reform requires collective action in that patients do not obtain the full benefit from the incentives liability provides unless others impose it all well. It follows immediately that negotiable contractual liability is not efficient because a patient deciding whether to contract into liability individually will not get the full benefit of the collective decision to impose the equivalent amount of liability. Indeed, a patient who is one of many has strong incentives to waive contractual liability, even when state-imposed liability would be optimal, because his individual waiver will have little effect on the provider's incentives to make substantial systemic investments. This incentive to waive is exacerbated by the fact that a patient who waives can "free-ride" on investments induce by the liability imposed by others since providers who invest in safety tend to apply these investments to all their patients, regardless of their liability provisions. This implies that individual negotiated contracting will not lead to optimal malpractice liability reform.

This article next considers whether a state adopting malpractice liability reform nevertheless should allow patients to contract around it. This article shows that a benevolent state will not necessarily benefit patients by allowing them to contract over liability because even informed patients may contract for rules that leave them worse off than they would be under malpractice liability. Contracting can make patients worse off because patients obtain less benefit from liability imposed by contract than they do from liability imposed by fiat. Given this, individual negotiated contracting can lead patients to waive liability even when they all would be better off were liability imposed by the state.

Negotiated contracting over liability is inefficient for two reasons. First, it is plagued by collective action problems because, as previously explained, liability is needed to induce collective investments in care and patients have suboptimal incentives to impose liability individually in order to regulate such investments. Second, it is plagued by timing problems, which arise from the fact that patients obtain a benefit from the pre-contractual imposition of liability by the state which they are not able to obtain by negotiating to impose liability by contract. Malpractice liability benefits patients by inducing medical providers to make quality-enhancing investments in care prior to assuming care of a patient.¹⁷ Yet patients cannot use negotiable contractual liability to similarly induce higher pre-contractual care. By definition, patients cannot use the imposition of contractual liability to alter care investments *prior* to the contract because those investments are fixed at the moment of contracting. Nor do patients benefit from the use of negotiated contractual liability to signal which providers already made higher pre-contractual investments in care.¹⁸

¹⁶ Collective and durable investments in care include physicians' investments in expertise needed to diagnose illnesses and assess treatments, as well as investments in equipment that reduces the likelihood or consequences of error.

¹⁷ Patients' welfare depends on providers' investments in pre-contractual care because medical providers can improve the quality of care they deliver through investments in expertise, training and equipment made long before providing care to any given patient. See infra Section I.

¹⁸ See Arlen, *supra* note 14; compare with Sanford Grossman, *The Informational Role of Warranties and Private Disclosure About Product Quality*, 24 J. LAW & ECON. 461 (1981).

Negotiable contractual liability cannot be used to signal quality because any patient negotiated with a provider who has offered to bear liability has a strong incentive, if he believes the signal, to request that the provider accept a liability waiver in return for charging a lower price.¹⁹ This undermines signaling, however, because low quality providers can mimic the contracts of high quality providers, knowing that patients will waive liability.²⁰ As a result, patients will not value liability as a signal of pre-contractual quality and thus will waive optimal liability when the primary benefit of liability is to induce pre-contractual investments in care.

Having established that individual contracting is inefficient, this Article then examines contractual liability implemented through contracting over liability between MCOs²¹ and their subscribers. The most effective – and the most popular -- way to implement such a contractual liability regime would be to shift liability onto MCOs and allow them to offer some medical plans in which patients agree to waive liability against all providers and other (higher cost) plan in which patients impose liability. This article shows that MCO contractual liability could solve some, albeit not all, of the problems of individual negotiated contracting. But it would introduce a new one: "adverse selection." Adverse selection is a problem because, all else equal, patients obtain more benefit from the imposition of malpractice liability when they are likely to make significant use of the services that malpractice liability regulates. This implies that patients in need of regular or serious medical care can be expected to be more willing to pay for liability than healthy patients. Given this, MCOs will have to price "liability" networks based on the assumption that the patients seeking liability have higher than average health care costs. This pricing structure will force patients with average health care costs away from liability plans – even when it would be optimal for the vast majority of patients to impose liability – because the price they must pay to impose liability includes not only the direct cost of liability, but also the added premium charged to patients with higher than average expected costs. Adverse selection thus will cause many patients to waive liability who would be better off were optimal liability imposed. 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 elect to waive liability even though almost all would be better off were liability imposed by fiat.

Accordingly, this article shows that contracting over liability is not efficient because it creates systematic incentives for patients to waive liability even when they are better off if liability were imposed. This implies that, even under the best of circumstances, contractual liability is not an effective mechanism for achieving optimal malpractice liability reform because patients have neither the incentives nor the ability to contract into optimal liability provisions. It also implies that state should not rush to contracting as part of state-adopted liability reforms. States genuinely interested in their citizens' welfare may be better able to

¹⁹ The patient will seek this waiver because the waiver does not affect quality – since that is determined by investments in care taken pre-contract.

²⁰ See *infra* Section IV.

²¹ 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).

benefit patients by adopting effective malpractice liability reform, while retaining the prohibition on contracting out of 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 plausibly-efficient forms of contractual liability. Sections III and IV examine negotiated contracting over liability between patients and providers. Section III shows that patients cannot use negotiated individual contracting to obtain optimal malpractice liability reform. Section IV shows that if states should adopt reforms, they may harm patients if they allow them to contract out of them through contracts executed with individual providers. Finally, Section V examines the non-negotiable collective contracting between patients and MCOs and reveals that adverse selection would render these contracts inefficient. Section VI concludes by discussing the implications of this analysis for malpractice liability reform.

I. ECONOMIC ARGUMENT FOR MALPRACTICE LIABILITY

Patients face a serious risk of being severely injured or killed by their medical care unless medical providers invest adequately in the expertise, technology, staffing, and administrative systems that enable them to deliver quality care. As this section explains, current medical providers will not invest adequately in reducing error, however, unless they expect to suffer a financial loss when they err. This justifies the imposition of medical malpractice liability. Malpractice liability induces physicians and medical care organizations (e.g., hospitals) to make both patient-specific investments in care at the moment of treatment and also pre-treatment investments in expertise, equipment, and systems that benefit patients collectively. This section discusses the causes of medical error and explains why health care safety depends on an effective system for sanctioning medical error. It then discusses the limitations of the current system and explains why effective reform requires that certain providers bear increased liability.

A. CAUSES OF MEDICAL ERROR

Patients face a substantial risk of medical error. Indeed, 4 - 18 % of hospital patients are injured by the medical care they receive, many of them seriously.²² These

²² Studies reveal that 4 - 18 % of hospital patients can expect to be victims of error that seriously injure them. The low estimate (4%) comes from the Harvard Medical Malpractice Study which reviewed written hospital records and found that 3.7% of the patients were victims 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). The higher estimate (17.7%) is from a study involving on-site observation of hospital error. Most of the errors detected by on-site observation were not recorded in the hospital's written records. Lori Andrews, *Studying Medical Error in Situ: Implications for Malpractice Law and Policy*, 54 DEPAUL L. REV. 357, 362 (2005). Other studies of hospital error include Robert H. Brock, et al., *Effectiveness of Nonemergency Care Via an Emergency Room*, 78 ANNALS INTERNAL 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). A recent study in England found that one in ten hospital patients is harmed in the

errors cause enormous human suffering. They also are expensive. The total national cost of preventable adverse medical events is about 17 - 29 billion per year.²³ Adverse events in hospitals alone impose costs of \$2,013 per *patient admission* (in 2005 dollars); injuries to hospital patients resulting from medical negligence increase costs by about \$1,246 per patient admission.²⁴ Thus, regulating medical error is a way to both protect patients' lives and lower unnecessary medical costs.

Medical error cannot be adequately controlled through physician licensing and other quality regulations alone. At one point, people viewed licensing and similar regulations as the solution because they assumed that most medical errors were caused by a few bad doctors. Yet empirical analyses of medical error consistently refute this "bad apple" view of medical error.²⁵ Incompetent physicians are not the leading cause of medical error. Instead, most patients who are seriously injured or killed by medical negligence were injured or killed by medical providers who were competent to provide medical care, but who nevertheless provided erroneous (indeed negligent) care. Accordingly, even if the medical community were able to police its members adequately, this regulation would not eliminate the primary causes of medical error.²⁶ To adequately

²⁴ Michelle Mello, et. al., Who Pays for Medical Errors: An Analysis of Adverse Event Costs, the Medical Liability System, and Incentives for Patient Safety Improvement, 4 J. EMP. LEGAL STUD. 835 (2007). Another study found that errors in hospitals result in excess hospital charges of almost \$5 billion per year, in addition to the other costs they impose on victims. C. Zhan and M. Miller, Excess Length of Stay, Charges and Mortality Attributable to Medical Injuries During Hospitalization, 290 JAMA 1868 (2003).

²⁵ John E. Rolph, *et. al, Identifying Malpractice-Prone Physicians*, 4 J. EMP. LEGAL STUD. 125 (2007) (The generally accepted view rejects the idea that medical error is caused by bad apples, who are best controlled by regulation, and instead focuses on systematic causes of and cures for error).

²⁶ The claim that the majority of errors are caused by technically competent physicians does not imply either that physician incompetence is not a serious problem. There is no question that hospitals, insurers, and state regulatory boards could save lives through improved efforts to identify and limit the practices of incompetent physicians. Unfortunately, licensing and review boards have not proven to be an effective way to regulate incompetent physicians largely because they currently depend on self-reporting to self-regulatory agencies. Moreover, hospitals are often slow to report problem physicians, see GAWANDE, *supra* note 22, at 88-106 (describing slow response to problem physicians); state disciplinary review boards rarely impose serious disciplinary sanctions (e.g., suspension, probation, or license revocation on physicians). For example, in 2001, review boards imposed fewer than two disciplinary actions per 1,000 physicians (.2%) in District of Columbia, Hawaii, Delaware, South Dakota, Illinois, South Carolina, Wisconsin, Minnesota, Maryland, Rhode Island, Indiana, Connecticut, Maine, and Wyoming. See Public Citizen, Ranking of State Medical Boards' Serious Disciplinary Actions in 2001 (HRG Publication #1616), at http://www.citizen.org/documents/ 1616table1.pdf (2001). Finally, there is little control of hospitals which impose an excessive risk of error on patients due to poor systems. Nevertheless, the fact remains that even effective quality regulation would not

hospital; a third of these harms could have been prevented. Twenty percent of these harms resulted in either permanent injury or death. British Medical Journal (November 30, 2007). Finally, one study of patients who died in hospitals found that 40% were misdiagnosed; one third would have been expected to live if properly diagnosed. ATUL GAWANDE, COMPLICATIONS, 197-98 (2002). For a discussion of individual physician error, see *infra* note 29.

²³ 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]. This probably under-estimates the total cost of the medical "error" because it does not include many infections which probably result from poor hospital practices, but nevertheless generally cannot be treated "medical error" because it is difficult to distinguish infections caused by substandard care from infections that are a background risk of the procedure. Nevertheless, it appears that preventable infections increase the overall cost of medical care by billions of dollars. See *infra* note 36 (discussing hospitals' ability to reduce infections).

control error, we need to implement measures that deter error by competent physicians and medical care organizations (e.g., hospitals and MCOs).

To control error by competent providers, it is necessary to understand why they err. Most medical error cannot be blamed on bad faith or a deliberate effort to provide low quality care. Instead, analysis reveals that most medical error truly is accidental, and committed by physicians who are attempting to provide good quality care. Nevertheless, to conclude that error is accidental does not imply that it is inevitable or that the rate of error is optimal. To the contrary, studies of medical error reveal that medical providers (and organizations) could substantially reduce the risk of error by investing more in their *capacity* to provide good quality care.²⁷ Specifically, they need to invest more in their capacity to diagnose patients properly and select the proper treatment; they also need to invest more in measures to reduce error in the actual delivery of care. This investment in expertise is important because almost half of all medical errors that result in a claim are attributable, at least in part, to inadequate physician knowledge and technical competence.²⁸ Inadequate knowledge also largely explains the finding that physicians do not provide the medically recommended treatment to 40-45 % of the patients with chronic diseases and provided "contra-indicated" treatments to approximately 20% of their patients.²⁹ Physicians could take a variety of measures to reduce their likelihood of diagnosis and

²⁸ Michelle M. Mello & David M. Studdert, *Deconstructing Negligence: The Role of Individual and System Factors in Causing Medical Injuries*, GEORGETOWN L. J. 18 (forthcoming 2008) (48% of the medical errors in cases that produced a claim were attributable, at least in part, to the physician's lack of technical competence or knowledge); see also Lori B. Andrews et al., An Alternative Strategy for Studying Adverse Events in Medical Care, 349 Lancet 309 (1997) (analyzing medical errors in three surgical units based on on-site observation of error and finding that many errors are attributable to lack of knowledge, often related to lack of adequate supervision); Thomas J. Krizek, Surgical Errors: Ethical Issues of Adverse Events, 135 Archives of Surgery 1359, 1360-61 (2000)(same study).

²⁹ There is evidence that physicians fail to provide the medically recommended treatment to 40-45% of the patients with certain, common, chronic conditions. *E.g.*, Mark A. Schuster et al., *How Good Is the Quality of Health Care in the United States*, 76 MILLBANK Q. 517, 521 (1998) (only about 60% of patients with chronic disease receive the care indicated by medical literature; moreover, 20% of patients received care that is contraindicated); Elizabeth A. McGlynn et al., *The Quality of Health Care Delivered to Adults in the United States*, 348 NEW ENG. J. MED. 2635, 2641-42 (2003) (patients on average receive only about 55 % of recommended care). Physicians who selected the wrong treatment generally did so because they were unaware of the medically recommended treatment. *See* McGlynn, *supra*, at 2641-42. In addition, evidence suggests that 10-15 % of physicians' diagnoses are wrong. JEROME GROOPMAN, HOW DOCTORS THINK, 24 (2007). These faulty diagnoses can have disastrous consequences for the patient. One study of patient autopsies found that 40 % of the patients' deaths were attributable to a faulty diagnosis; one-third of these patients would have been expected to live if given proper treatment. *Gawande, supra* note 22, at 197-98. Physicians could reduce their risk of diagnostic errors by investing more in their diagnostic expertise and in obtaining patient information needed for a good diagnosis. *See* GROOPMAN, *supra*.

Continuing medical education does not adequately control the expertise problem. Although it is common for states to have these requirements, monitoring generally is limited to checking whether the physician attended the *conference*; physicians' attendance at individual sessions generally is not monitored. Moreover, the continuing education cannot, in and of itself, replace the benefits of keeping abreast of medical developments because medicine advances so rapidly that it is not possible to rely primarily on these limited sessions to stay adequately informed.

be enough because many errors are committed by physicians and hospitals who satisfy any plausible test of basic competence.

²⁷ *E.g.*, INSTITUTE OF MEDICINE, *supra* note 22; WEILER, *et. al, supra* note 22; Andrews, *supra* note 22. For a detailed discussion of the evidence supporting the view of error see Arlen & MacLeod, supra note 13.

treatment errors, including increased attention to continuing education and greater supervision of newer physicians. Physicians also could reduce error rates by installing better equipment designed to detect error.

But physicians are only part of the problem. Many errors result when organizations (such as hospitals) fail to implement systems to reduce the probability and consequences of medical error. Indeed, one recent study suggested that approximately 57% of medical errors were caused, at least in part, by system problems. These system errors included inadequate supervision of medical personnel, inadequate procedures for transferring responsibility for patients, inadequate staffing and inadequate technology.³⁰

Many of the system factors that influence patient care are in the control of hospital administrators, not individual physicians.³¹ Hospitals control equipment purchases. They also determine whether inexperienced physicians are adequately supervised,³² the probability that medical personnel know their patient responsibilities and are adequately informed about their patients' care, and the likelihood of patient infection.³³ They also control whether their employees and affiliated physicians have access to information technology capable of alerting providers promptly when an error has been made.³⁴ Finally, hospitals establish the rules governing maximum (and required) shifts that determine whether patients are cared for by a physician whose judgment is potentially impaired by lack of sleep.³⁵

³³ See *infra* note 36.

³⁵ Prior to 2003, work hour guidelines allowed interns in the United States to work very long shifts. The resulting exhaustion contributed to medical error. 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) (residents on the traditional extended schedule made 39.5% more "serious medical errors" than did residents

³⁰ Mello & Studdert, *supra* note 28, at 18 (finding that 57% of errors where claims were filed had systemic causes, usually in addition to individual causes); Andrews, *supra* note 22 (discussing the role of systemic factors in causing medical errors in a hospital setting).

³¹ *E.g.*, Andrews, *supra* note 22; Mello & Studdert, *supra* note 28; see also WEILER ET AL., *supra* note 22 (discussing the Harvard Medical Practice Study of error in hospitals). For a more detailed discussion of the evidence on medical error see Arlen and MacLeod, *supra* note 13, at 1938-1939, 1950; see also TOM BAKER, THE MEDICAL MALPRACTICE MYTH, 24 - 36 (2005).

³² Hospitals' policies determine the likelihood that a patient will be treated by an inexperienced medical provider, such as an intern; they also determine whether that inexperienced provider is properly supervised. Lack of supervision has been shown to be a contributing factor in 20% of medical errors where claims were filed. Mello & Studdert, *supra* note 28.

³⁴ Hospitals also affect error rates through their investment in health care technology. For example, many patients are injured each year by drug errors. See Gawande, supra note 22, 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. POL'Y & L. 1069, 1076 (2001). 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); cf. Barbara F. Ostrov & Julie S. Lyons, Surgical Errors Alleged at Stanford Hospital, SAN JOSE MERCURY NEWS, Apr. 30, 2002, at 1B (surgical gauze remains inside patients with sufficient frequency that some surgical gauze companies have incorporated materials into their gauze to make it detectable by X-ray post-surgery). Hospitals could reduce these problems through adopting surgical-materials-count procedures pre- and post-surgery. Hospitals could also protect patients from harms caused by faulty equipment by establishing adequate systems to ensure the reporting and repair of broken equipment. See Andrews, supra note 22 (finding that many patients were injured by faulty equipment which a hospital member had previously identified as broken but took no steps to fix, largely do to poor administrative procedures governing equipment).

The existing evidence thus suggests that physicians and hospitals could significantly improve patients' safety through additional investments designed to reduce the probability and consequences of error. Moreover, there is evidence to suggest that many of these improvements would be cost-effective.³⁶ Investments in safety are particularly likely to be cost-effective if undertaken by hospitals and physicians with higher than average error rates. A recent study showed that while average injury costs due to hospital medical management are high – reaching more than \$1,240 per patient admission – there is significant variation in these error rates with the least risky hospitals generating injury costs of only \$42 per patient admission while the riskiest generate injury costs of \$4,769 per patient admission.³⁷ The low error rates of the best hospitals provide reason to believe that many other hospitals could reduce their error rates (in some cases, 100-fold) by improving their systems and procedures. The high average (and median) error rates suggest that the problem of inducing greater safety is wide-spread; it is not a problem localized to a few particularly poor hospitals.

Accordingly, the evidence on medical error supports several conclusions that are relevant to the debate over malpractice liability. First, it is important to act to reduce medical error. Second, medical error generally is caused by competent physicians and thus cannot be controlled solely through regulations designed to remove incompetent physicians. Third, to reduce error effectively, individual providers must be induced to invest more in their capacity to provide error-free care. Providers must be encouraged not simply to invest in quality once they assume responsibility for the care of any given patient, but also to invest in patient safety before assuming this responsibility, for example by investing in expertise, technology and systems that promote error free care. Fourth, incentives to invest in good care must reach not only individual physicians but also the

³⁶ For example, there is mounting evidence that many lives could be saved, at relatively low cost, by protocols to ensure that medical personnel wash their hands properly and by better procedures for controlling antibiotic-resistant staphylococcus infections. Indeed, evidence suggests that the prevalence of deadly hospital-induced infections in the U.S. could be reduced by 68% through better procedures. European hospitals have nearly eliminated the risk of antibiotic resistant staphylococcus. Kevin Sack, *Swabs in Hand, Hospital Cuts Deadly Infections*, New York Times, A1, A16 (July 27, 2007).

³⁷ Mello, et. al., *supra* note 24; see also 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); Danzon, supra note 1, at 1353 (Harvard Medical study found hospitals varied widely in their error rates with some having a negligent error rate of only 1 percent while others had a negligent error rate of 60 percent. These differences in quality were not all attributable to differences in illnesses and patient populations).

on a lighter schedule); J. Todd Arnedt, et. al., Neurobehavioral Performance of Residents After Heavy Night Call vs. After Alcohol Ingestion, 9 JAMA 1025 (2005) (Pediatric residents on a "heavy call" schedule committed 40% more errors than those on a light call schedule. Residents had limited ability to diagnose their own impairment); 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%). Maximum shifts were recently reduced to 24 consecutive hours by the American Council for Graduate Medical Education (ACGME), but these shifts still produce error-causing exhaustion. Rivka Galchen, Medical Residents Are Not Allowed to Work More Than 80 Hours a Week. So Why is Everyone Complaining? WORK MAGAZINE. Moreover, physicians' hours remain unregulated, in contrast with the European Union which limits the duration of shifts for all physicians to 13 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).

medical organizations (e.g., hospitals and MCOs) that control many of the factors that determine whether patients receive good quality care. Finally, the problem of medical error cannot be solved by *ex ante* regulation alone. Although it is possible to identify certain specific changes that could reduce medical error (for example, some states have intervened to regulate interns' shift lengths), regulation alone cannot ensure that physicians and hospitals make all the cost-effective investments they should make to limit error. *Ex ante* regulation alone is not sufficient because the factors that go into good quality care are too numerous and vary too much across types of practices and providers to be dictated in advance; moreover they change over time. Finally, adherence is too hard to monitor on an on-going basis for regulation.

The best way to improve patients' safety is to supplement regulation with a system that allows medical providers to determine the actions they want to take to protect patients, while providing them with adequate incentives to make cost-effective investments in patient safety. This raises the question, what does it mean for physicians and hospitals to invest adequately in safety? There are many possible answers to this question. The answer suggested by economic theory is that physicians and hospitals in the United States should invest in the level of safety that maximizes expected patient welfare, given that patients ultimately must bear the cost of all safety investments. This implies that medical providers should undertake those investments that patients collectively would be willing to pay for if they were rational and fully informed about the expected pecuniary and non-pecuniary benefit³⁸ to them of the resulting reduction in the probability and magnitude of error.³⁹

B. MALPRACTICE LIABILITY AND DETERRENCE

Economic theory thus implies that health care regulation should induce medical providers to undertake those investments in safety that patients would be willing to pay for if patients were fully informed about the impact of safety expenditures on error.⁴⁰ Economic theory also implies that physicians and hospitals will not make optimal investments in patient safety unless they are subject to financial sanctions for harms resulting from medical error.⁴¹

³⁸ See Arlen & MacLeod, *supra* note 13, at 1948-1954 (discussing this in more detail). Patients' willingness-to-pay for safety is the correct measure of the "value" of reducing the risk of error in health care because the United States limits most patients' entitlement to health care to the level that patients are willing and able to pay for. The willingness-to-pay measure would include patients' willingness-to-pay to avoid both the pecuniary and the non-pecuniary losses associated with the injury. See generally, Jennifer Arlen, *Tort Damages: A Survey*, in ENCYCLOPEDIA OF LAW & ECONOMICS (Boudewijn Bouckaert and Gerrit De Geest, ed., 2000) (discussing deterrence versus insurance objectives).

³⁹ Thus if an investment reduces the risk of death by 10% for 1,000 patients, medical providers should be induced to make the investment if the cost of the investment is less than 1,000 times the amount that a patient would pay to reduce his risk of death by 10%. This investment not only benefits patients, it benefits medical providers. Medical providers are better off because patients will pay more for care that they expect to be of higher quality.

⁴⁰ Safety investments are cost effective if the amount that all affected patients are willing to pay for the superior outcomes generated by the investment exceeds the cost of the safety investments. See Jennifer Arlen and W. Bentley MacLeod, *Torts, Expertise and Authority: Liability of Physicians and Managed Care Organizations*, 36 RAND J. ECON. 494 (2005) (deriving the conditions for optimal care and damages for malpractice).

⁴¹ Malpractice liability is not the only mechanism states can use, but it can achieve improvements in quality not easily reached by other mechanisms. See *supra* notes 26 and 29 (discussing problems with these

Physicians and hospitals contemplating expenditures on safety balance the costs and benefits to them of these investments. Physicians and hospitals will spend as much on safety as patients want them to (and are willing to pay for) only if they derive the same benefit as patients do from the resulting improvement in patients' expected health (as measured by patients' willingness-to-pay for the resulting higher expected outcomes). Thus, medical providers will under-invest in patient safety unless they bear the same expected cost of the additional injuries that result from insufficient safety as do their patients (as measured by patients' collective willingness-to-pay for greater safety).

Malpractice liability is needed to induce medical providers to invest as much in safety as their patients are willing to pay for because market forces alone do not ensure that medical caregivers invest optimally in safety. Medical caregivers invest optimally in safety only when they obtain the same benefit as their patients do from investments in safety (based on patients' willingness to pay) or, equivalently, suffer the same costs as their patients do when they under-invest in safety. Market forces do not provide efficient incentives to invest in safety because hospitals and physicians who deliver suboptimal quality care do not suffer a decline in revenues or increase in costs equal to the cost to patients of the resulting higher risk of error.⁴² Hospitals' and physicians' revenues do not adjust fully to reflect quality differences because patients do not have sufficiently good information on provider quality to adjust their willingness-to-pay to receive care from different providers based on the expected risk of error of each different provider.⁴³

⁴² Physicians will not invest optimally in patient safety unless threatened with financial sanctions for medical negligence even when physicians care about their patients' welfare. Physician compassion, in and of itself, will not induce optimal investment in safety as 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) (deriving the conditions for optimal care and damages for malpractice) (showing that even compassionate physicians under-invest in expertise absent liability for medical error). Moreover, hospitals are businesses, and thus cannot be induced to invest optimally based on compassion alone. Cf. Jill Horwitz and Austin Nichols, *What Do Nonprofits Maximize? Nonprofit Hospital Service Provision and Market Ownership Mix* (unpublished working paper, 2007) (showing that even non-profits respond to market pressures in their choice of services, altering services when for-profit hospitals enter the market).

⁴³ Sherry Glied, *Managed Care*, in 1A HANDBOOK OF HEALTH ECONOMICS, 725 (Anthony J. Culver & Joseph P. Newhouse eds., 2000). For example, few patients know the relative expected survival, readmission and infection rates of patients treated for any given condition at different hospitals. Moreover, even if some limited information is available, most patients do not spend the time and effort needed to get good information on expected provider outcomes because patients tend to underestimate both the likelihood of

other mechanisms). Nevertheless, malpractice liability could be more effective if supplemented by a good disclosure system which provided information on adverse outcomes (adjusted for patient quality). Disclosure is particularly important with respect to preventable adverse outcomes, such as hospital infections that are not easily deterred through malpractice liability because patients usually cannot prove the infection was caused by negligence. Cf. Sacks, *supra* note 36, at A16 (the vast majority of states do not require hospitals to disclose infection rates and few hospitals currently disclose this information voluntarily). For a useful discussion of the benefits of increased disclosure of medical outcomes see Kristin Madison, *Regulating Health Care Quality in an Information Age*, 40 U.C. DAVIS L. REV. 1577 (2007); cf. Kathryn Zeiler, *Turning from Damage Caps to Information Disclosure: An Alternative to Tort Reform*, 5 YALE HEALTH POLY L. & ETHICS 385, 394-95 (2995) (disclosure of MCO-physician contract terms would improve patients' estimate of providers' expected quality of care); but see William Sage, *Regulating Through Information: Disclosure Laws and American Health Care*, 99 COLUM. L. REV. 1701, 1736 (disclosure to individual consumers is "unlikely to be a practical substitute for minimum quality standards, private accreditation, and expert intermediaries.").

Indeed, most patients believe that health care regulation is sufficiently strong to eliminate any significant differences in physician or hospital quality,⁴⁴ even though licensed medical providers differ dramatically in the expected quality of care they deliver.⁴⁵ Another reason providers' revenues do not adjust adequately to reflect quality differences is that providers' per patient payments are determined significantly by contracts with insurers. Insurers usually pay medical providers a fixed amount per-patient or per-treatment basis; most do not adjust payments to reflect providers' overall expected quality.⁴⁶ Finally, providers' revenues cannot adjust to accurately reflect the quality delivered because quality depends on non-contractible actions to be taken post-contract, after the price has been set. Providers cannot charge for future superior investments because they cannot guarantee that they will make them.⁴⁷

Not only do revenues fail to adequately adjust to reflect differences in expected outcomes, but medical providers do not even have to bear the increased medical expenditures resulting from their provision of erroneous care. Medical error in hospitals results in billions of dollars of excess medical costs each year.⁴⁸ Yet hospitals are able to pass on to insurers or patients almost 80% of these costs; hospitals bear only 22 % of the increased health care costs occasioned by their error.⁴⁹

Malpractice liability is thus needed to supplement the market. Malpractice liability can induce medical providers to invest in patient safety by imposing greater costs on physicians and hospitals with high error rates than on those with low error rates. Accordingly, when properly designed, malpractice liability can enhance the welfare of patients and providers alike by inducing medical providers to make cost-effective investments in patient safety, even when patients cannot observe quality differences among providers. Moreover, malpractice liability for medical error not only can deter physicians

medical error and the degree to which licensed medical providers differ in quality.

⁴⁴ 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 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).

⁴⁵ See *supra* note 37 and accompanying text (discussing substantial variation in error rates) and note 36 (discussing huge variations in deadly infection rates); see also Chassin et al., *supra* note 37, at 394-97 (public reporting of substantial differences across physicians and hospitals in expected outcomes of patients undergoing coronary artery bypass graft surgery did not significantly affect patients' choice of provider).

⁴⁶ 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 adjusts the payment to reflect quality differences, in most cases. Thus, providers' investments in error-reduction come directly out of their profits. Cf. See Madison, *supra* note 41 (discussing some fledgling efforts, such as the LeapFrog Group, to adjust medical providers' revenues to reflect quality differences) and infra note 51 (discussing pay-for-performance).

⁴⁷ See Arlen & MacLeod, *supra* note 13, at 1961-1979 (showing that contracts cannot regulate most post-contractual investments in medical quality).

⁴⁸ One study of medical error in hospitals found that errors in hospitals result in excess hospital charges of almost \$5 billion per year -- in addition to all the other costs they impose on victims. Zhan & Miller, *supra* note 24.

⁴⁹ Mello, et. al, *supra* note 24, at 835.

from knowingly providing negligent care, but it also can reduce accidental medical error by inducing medical caregivers to make cost-effective investments in expertise, health care technology, and systems to reduce the probability and consequences of error. In addition, a well-designed liability system encourages providers to invest in durable safety not only for the benefit of existing patients, but also for the benefit of future patients.⁵⁰

Of course, using malpractice liability to regulate quality is not free. The tort system is expensive. Nevertheless, there are reasons to believe that the benefits of a properly designed malpractice liability would exceed the costs.⁵¹ As previously discussed, the evidence suggests that an effective liability system could prevent tens of thousands of deaths and injuries, resulting in billions of savings and much higher expected patient welfare. These cost savings that would result from an effective malpractice liability system compare favorably with the costs of the current malpractice liability, which runs about 1-2% of total health care.⁵² This is the equivalent of adding about \$10-20 to the annual bill of

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 anesthesiology plummeted; anesthesiologists now enjoy among the lowest medical malpractice insurance rates of any medical provider. Baker, *supra* note 31, at 108-110 (by 2002, death rates from anesthesia plummeted to 4 in 1 million patients; average malpractice insurance rates fell to \$18,000); see also Kenneth S. Abraham & Paul C. Weiler, *Enterprise Medical Liability and the Evolution of the American Health Care System*, 108 HARV. L. REV. 381, 411-412 & n. 115 (1994) (discussing the precipitous 50 percent fall in anesthesia-related mishaps after Harvard hospital administrators mandated the use of new equipment and protocols to protect patients); Similarly, case studies of hospitals reveal numerous situations where malpractice liability appears to have encouraged hospitals to alter their practices to save lives. See Baker, *supra* note 31, at 99-105 (discussing examples where hospitals reformed poor practices in response to the threat of malpractice liability).

⁵² Baker, *supra* note 31, at 40; see Danzon, *supra* note 37, 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

⁵⁰ This section can only briefly summarize the economic justification for malpractice liability. For a more detailed analysis see Arlen & MacLeod, *supra* note 13, at 1961-1987; Arlen & MacLeod, *supra* note 42 (presenting a formal model of malpractice liability in which physicians can err either knowingly or accidentally; the probability of accidental error depends on investments in expertise). This Article focuses on the deterrence aims of malpractice liability. For a discussion of the compensatory role of malpractice liability, see *infra* Section III.C.

⁵¹ There is evidence that the deterrence benefits of the existing system exceed the costs, although it is far from conclusive. See Danzon, *supra* note 37, 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); cf. Michelle M. Mello and Troyan A. Brennan, *Deterrence of Medical Errors: Theory and Evidence for Malpractice Reform*, 80 TEX. L REV. 1595 (2002) (malpractice liability appears to improve hospitals' safety records, but the evidence is limited); 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); BAKER, *supra* note 31, at Chapter 6 (discussing doubts about the general applicability of studies claiming to show that liability induces defensive medicine). For an interesting study suggesting that the quality-improvement benefits of financial incentives, see 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 reports information about quality).

a patient spending \$1,000/year on health care. This expenditure is worthwhile if malpractice liability is designed to regulate medical error effectively.

C. NEED FOR REFORM

Although malpractice liability is a potentially effective system for regulating medical error – and may, even in its current state, create benefits that exceed its costs in some areas – all agree that the current system for imposing malpractice liability does not live up to the full potential of a well-designed malpractice liability system and needs to be reformed.⁵³ This presents two related issues. The first is what is the best way to achieve malpractice liability reform? Specifically, should state courts and legislatures implement needed reforms or should states delegate authority over malpractice reform to patients, by allowing them to contract over liability with medical providers?⁵⁴ The second is, what provisions should these reforms contain?

Contractual liability proponents argue that contract holds the answers to both questions, claiming that states should allow patients and medical providers to adjust the malpractice liability rules that govern their relationship by contract. Proponents of contractual malpractice liability argue that states should use contracting over liability to reform malpractice liability and allow patients to tailor any state-adopted liability laws to suit their interests. They assert that states that permit contracting can only make patients better off because patients will contract for the liability terms that benefit them, as long as they are informed about the costs and benefits of imposing liability by contract. Based on this analysis, some contractual liability: states should permit contracting over liability and then step back. Beyond this, proponents argue that even if state intervention is needed to implement reform, the resulting liability laws should serve only as default laws that patients and medical providers are free to contract around.⁵⁵

II. ECONOMIC ARGUMENT FOR CONTRACTING OVER MALPRACTICE LIABILITY

This Section examines the economic justification for contracting over malpractice liability and presents the central test for determining whether it is correct. Contractual liability proponents claim that contractual liability is superior to malpractice liability because they assume that contractual liability can be designed to give patients optimal incentives to impose liability. Specifically, they assume that contractual liability can be designed to ensure that patients would impose liability whenever a benevolent state would have imposed it for them, if acting in patients' collective best interests.⁵⁶ Given this, patients can only benefit from the right to contract because they can do as well for

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).

⁵³ For a detailed discussion of the problems plaguing the current system see *infra* Section III.A.

⁵⁴ *E.g.*, Epstein, *supra* note 4; Epstein, Contractual Principles, *supra* note 3.

⁵⁵ Epstein, *supra* note 3, at 505, 509 (the parties, and not states, should set the terms of liability); Epstein, *supra* note 4; Robinson, *supra* note 4; Havighurst, *supra* note 4; Danzon, *supra* note 4.

⁵⁰ Epstein, *supra* note 3, at 505, 509 (the parties, and not states, should set the terms of liability); Epstein, *supra* note 4; see Robinson, *supra* note 4; Danzon, *supra* note 4.

themselves as the state could do acting on their behalf.

Most proponents recognize that not all forms of contracting confer these benefits. Contracting over liability can be assumed to enhance patients' welfare only if patients have optimal incentives to contract over liability, in that patients want to contract into the same liability regime that a benevolent state would impose by fiat, if acting on patients' behalf.⁵⁷ This requires that contracting must satisfy three conditions. First, patients must obtain the same benefit when they impose liability by contract as they would obtain if the state imposed their preferred liability regime by fiat. Second, patients must face the same costs imposing liability by contract as they would bear if the state imposed liability by fiat. Finally, patients must be informed about the existence and impact of contractual liability terms. Most contractual liability proponents assume that the first and third conditions are met, but accept that the second requirement limits the forms that contracting can take. Specifically, this second condition requires that eliminates from consideration contracting through non-negotiable contracts presented by providers to patients as a condition of receiving medical care because these contracts impose excessive search costs on patients seeking to impose liability. Liability proponents instead have focused on two alternative proposals: (1) negotiable contracting between patients and providers under which patients are required to serve any patient who wants to impose liability (albeit at a different price) and (2) non-negotiable contracting over liability through health insurance contracts executed annually between patients and MCOs.58 The economic claim for contracting over liability depends significantly on whether these forms of contracting are optimal.

⁵⁷ See Robinson, *supra* note 4, 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 them as would be achieved through paternalistic intervention").

⁵⁸ Proposals for entity-level contractual liability include Havighurst, *supra* note 4 (entity-level contractual liability); Danzon, *supra* note 4 (same); see also Richard A. Epstein & Alan O. Sykes, *The Assault on Managed Care: Vicarious Liability, ERISA Preemption, and Class Actions*, 30 J. LEGAL STUD. 625 (2001) (arguing that if MCOs are held liable, this liability should only be contractual). A few scholars advocate complete freedom of contract between individual physicians and their patients. Richard Epstein is the leading proponent of contracting between patients and individual providers. *E.g.,* Epstein, *supra* note 4; Epstein, Contractual Principles, *supra* note 3.

This article focuses on standard contractual liability. It does not discuss another form of contracting - ex ante contracting over quality through pay-for-performance measures. Pay-for-performance is a promising compliment to malpractice liability but is not a perfect substitute for it, at least at present. First, many current pay-for-performance programs pay for adherence to specific clinical guidelines, rather than paying for achieving good patient outcomes. This does not induce optimal investment in care measures which are not covered by the guidelines; nor will it induce optimal deviation from the guidelines when in patients' interests. Cf. Cynthia M. Boyd, et. al, Clinical Practice Guidelines and Quality of Care for Older Patients with Multiple Comorbid Diseases: Implications for Pay for Performance, 294 JAMA 716 (2005) (adhering to current clinical practice guidelines for older patients with several co-morbidities may have undesirable effects); Meredith B. Rosenthal and R. Adams Dudley, Pay-for-Performance: Will the Latest Payment Trend Improve Care?, 297 JAMA 740 (2007) (91% of pay-for-performance programs target clinical quality measures). Also, many pay-forperformance programs target the physician initially assigned responsibility for the patients' care, even though treatment of many, if not most, patients involves multiple physicians operating out of many different practices. Hoangmai H. Pham, et. al., Care Patterns in Medicare and Their Implications for Pay for Performance, 356 N. ENG. J. MED. 1130 (2007) (Medicare beneficiaries saw a median of two primary care physicians and five specialists working in four different practices. This dispersion of care limits the effectiveness of pay-forperformance initiatives based on a single retrospective measure for assigning responsibility for patient care).

A. ASSERTED BENEFITS OF OPTIMAL CONTRACTUAL LIABILITY

Economic proposals for contractual malpractice liability assert that patients are unambiguously benefited by the ability to contract over liability, because they assume that patients will impose liability by contract whenever a state would deem it optimal to impose liability by fiat. Proponents conclude that patients will impose liability whenever it would be optimal for a state to do so because they assume that patients obtain the same benefits, and face the same costs, when they impose liability by contract as they would obtain if the state imposed their preferred liability regime by fiat. This conclusion follows from the assumptions that patients bear all the costs and obtain the full benefits of any liability they impose by contract and that contractual liability provides the same benefits and imposes the same costs as liability imposed by the state. Given this, patients contracting for the liability rules that maximize their own welfare will in turn also contract for the rules that maximize social welfare – assuming that patients are informed, and that contractual liability proponents are correct in the premise that contracted for liability provides patients the same benefits as tort liability.

The assumption that informed patients and providers have optimal incentives to contract into liability has led contractual liability proponents to conclude that contractual liability is not just equal to malpractice liability, it is superior to it.⁵⁹ According to proponents, contracting has two advantages over mandatory liability. First, contractual liability is superior because it places control over the structure of liability with the parties who are best able to evaluate the costs and benefits of liability -- patients and providers -since they are the ones who will bear them. Second, contractual liability 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 the ability to vary liability rules because patients differ substantially in their ability, and thus their willingness, to pay for health care. Thus, 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. Accordingly, even states that are able to adopt effective malpractice liability reform can only improve patients' welfare by allowing them to contract out of these rules because even the best malpractice liability rules can only be optimal on average. Contracting improves patients' welfare even in these states by allowing patients who prefer a different standard of care than that induced by state-imposed malpractice liability to obtain the care that they are willing and able to pay for.⁶⁰

Contractual liability proponents' faith in the superiority of contractual liability has

⁵⁹ 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 4; Epstein, Contractual Principles, *supra* note 3; Danzon, *supra* note 4; Hylton, *supra* note 4; see also Schwartz, *supra* note 10(discussing contractual liability for product defects).

⁶⁰ Patients also differ in their desire for, and willingness-to-pay for, the compensation that malpractice liability provides. See *infra* Section III.C.3 (discussing the compensatory role of malpractice liability).

produced two different, but related, claims for the role of contracting. The strongest claim is that states should use contracting over liability as the primary mechanism for reforming malpractice liability. Specifically, it is argued that states seeking to reform malpractice liability should simply adopt contractual liability and leave the rest to patients and providers.⁶¹ By contrast, the second view holds that contracting should supplement reforms adopted by the state. On this view, states should intervene to reform their malpractice liability laws, but these reformed laws should serve only as default rules. Patients and medical providers should be free to contract around (or out of) these laws, in order to enable patients to adjust malpractice liability rules to their individual needs. Any patient who is best served by the malpractice liability regime proposed by the state will insist on imposing this regime by contract. Only those patients who are better off under a different regime will use their right to contract to alter the rules that apply to them.⁶²

B. IDENTIFYING THE FORMS OF CONTRACTING TO BE CONSIDERED

Although proponents regularly assert that contractual liability necessarily is superior to malpractice liability, they have never shown that it is. They have never thoroughly examined the economic incentives provided by contractual liability to determine whether in fact it can be presumed to enhance patients' welfare. Instead, they have restricted their attention to a subset of the prerequisite conditions for optimal contracting. These conditions narrow the range of contractual liability proposals which can plausibly claim to be welfare enhancing. The existing analysis does not establish that these proposals are efficient, however.

1. Requirements for Optimal Contracting

Contracting over liability cannot be assumed to benefit patients unless patients benefit from contracting into the same liability regime that a benevolent state (seeking to maximize patients' and providers' joint welfare) would impose by fiat. Patients will contract into optimal liability only if three conditions are met: each patient deciding whether to contract into liability must (1) obtain the same benefit (in terms of improved safety) and (2) bears the same costs as he would if the state imposed malpractice liability.⁶³ The third condition is that patients must be informed about the existence and impact of contractual liability terms.⁶⁴ Accordingly, to show that contractual malpractice liability

⁶¹ *E.g.*, Epstein, *supra* note 4; Epstein, Contractual Principles, *supra* note 3; see Hylton, *supra* note 4; Schwartz, *supra* note 10.

⁶² Proposals that states adopt entity-level liability but then permit patients and providers to contract around it fall into this category. E.g., Havighurst, *supra* note 4; see Danzon, *supra* note 4 (MCO liability should be contractual).

⁶⁵ Patients must derive the same benefit from liability imposed by contract as they do from malpractice liability because otherwise patients who benefit from state imposed liability nevertheless may not eschew liability imposed by contract. Patients who reject liability in this situation can be worse off than if the state imposed liability by fiat. For similar reasons, patients contracting into liability must incur the same costs that they would incur if the state imposed liability by fiat. This implies that contracting is potentially optimal if patients imposing liability are required to pay the costs associated with the added care and compensation induced by liability. It is not optimal, however, if patients seeking liability bear any additional burdens, such as delayed health care.

⁶⁴ Patients can be sufficiently informed to contract over liability even when liability is needed to

Contractual liability proponents tend to assume that the first and third conditions are met: they tend to assume that contracted-for liability provides patients with the same deterrence benefits as state-imposed liability;⁶⁵ they also generally claim that patients can assess liability terms.⁶⁶ They have focused their attention on the second condition. This condition, they recognize, limits the forms of contracting which can be employed. Specifically, it eliminates from consideration contracting over liability that occurs when individual providers present patients with non-negotiable waivers as a condition of receiving service.

2. Non-negotiable Contracts at the Point of Service

Nonnegotiable contracting between patients and individual providers at the point of service generally violates the condition that patients face the same costs in imposing liability by contract that they would face were liability imposed by the state. This condition implies that the patient must be able to obtain liability whenever he is willing to pay an amount equal to (but not greater than) the cost of the safety induced by liability plus the expected cost of imposing malpractice liability.⁶⁷ Nonnegotiable contracting between patients and individual providers at the point of service violates this condition because providers usually do not present patients with their service contracts until after the patient is in the office seeking care.⁶⁸ Moreover, patients are unlikely to know the contract clauses

⁶⁰ E.g., Epstein & Sykes, *supra* note 10 (information problems associated with MCO contractual liability are not significant): see also Schwartz, supra note 10 (arguing that mandatory products liability is not necessary because customers do not systematically under-estimate product risks). But see Mark Geistfeld, *The Political Economy of Neocontractual Proposals for Products Liability Reform*, 72 TEX. LAW REVIEW 803 (1994) (consumers are not sufficiently informed to evaluate contractual products liability); Arlen, *supra* note 13 (patients are not sufficiently informed to evaluate contractual malpractice liability). Rather than join the debate over information problems, this article focuses on the validity of the claim that contracting is efficient when patients are sufficiently informed to contract over liability.

⁶⁷ Non-negotiable contracting could satisfy this test in a perfect world, where consumers know the liability clauses of all competing sellers and can costlessly move from one seller to another. When search is costless, the only cost to a patient of rejecting a liability waiver from one provider in order to obtain services from a provider who accepts liability is the additional amount that this second provider will charge for liability. This amount should equal the costs that liability imposes on her, including safety costs.

⁶⁸ Most patients do not see most of their providers' contracts until they need care. At this point, they

address patients' imperfect information about provider quality because patients can evaluate the costs and benefits of imposing liability even when they do not know enough about the quality of individual providers for markets to function efficiently without liability.

⁶⁵ Many opponents of contractual liability also have shared this assumption, focusing entirely on whether patients are sufficiently informed to contract over liability or are impeded from imposing liability by medical duress. Nevertheless, a few scholars have identified problems with contractual liability that go beyond search costs and information problems. See Arlen & MacLeod, *supra* note 13; Arlen, *supra* note 13; Geistfeld, *supra* note 55; Wickelgren, *supra* note 13. Some of these arguments were developed for the products liability context and may not apply to malpractice liability. For example, Mark Geistfeld has argued 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 55. 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.

of all alternative providers. As a result, patients are not presented with standard form contracts until they seek medical care. At this point, a patient presented with nonnegotiable exculpatory provision, which requires him to waive liability in order to get medical services, cannot obtain liability by agreeing to pay the costs associated with its imposition, because he cannot obtain liability unless he incurs the costs of searching for a provider who accepts liability. This includes the delay of waiting for an appointment with this provider. These added costs place inefficient pressure on patients to accept waivers.

Search costs are particularly likely to distort contracting when patients need emergency care or would suffer adverse health costs if care is delayed. Patients' illnesses also may undermine their ability to engage in an effective search. Because of these added search costs, a patient who derives a net benefit from liability nevertheless may accept a liability waiver, because he cannot bear the adverse health consequences of delaying treatment in the hope of finding a provider with better liability terms.⁶⁹ This form of contracting is not efficient in these circumstances.⁷⁰ Consistent with this analysis, courts

⁶⁹ Arlen, *supra* note 13, at 254 & n. 34. 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 producers' 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.

⁷⁰ For a useful discussion of the problems of standard form contracts see, e.g., Avery Katz, *Standard Form Contracts*, 502, in THE NEW PALGRAVE DICTIONARY OF LAW AND ECONOMICS, (Peter Newman, ed., 1998); Lewis Kornhauser, *Unconscionability in Standard Forms*, 64 CAL. L. REV 1151 (1976); Marcel Kahan and Michael Klausner, *Standardization and Innovation in Corporate Contracting (Or "The Economics of Boilerplate")*, 83 VA. L. REV (1997) (discussing how learning and network externalities can lead parties to converge on inefficient standard terms).

The concern that patients cannot contract effectively on their own behalf through adhesion contracts executed at the point-of-service is exacerbated by the fact that patients seeking medical care often do not read the long, standard form, contracts that they are presented with. Many patients seeking immediate medical care are too sick to thoroughly examine and contemplate complicated contracts. Moreover, even patients who are well enough to read these contracts often rationally choose not to do so because they assume that the market will ensure that all adverse terms are removed. Specifically, many patients will assume that they do not need to read the contract because others will have done so and pressured providers to remove objectionable terms. This free-rider problem can result in suboptimal terms remaining in providers' contracts. In addition, patients may remain rationally ignorant if they conclude that they would be unlikely to seek a new provider even if the liability term is suboptimal. This is particularly likely if the patient faces very high search costs or if the patient is contracting 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.

cannot expend time and energy for effective comparison shopping either because they need immediate care or are too ill. Some problems could be reduced by requiring physicians to post their standard form contracts on the web. This solution is of limited value, however, because patients often do not anticipate their need for medical care from particular physicians until they are ill. At this point, they often do not have the time or energy to engage in effective search for a provider with acceptable contract terms who is on their medical plan. Moreover, to the extent that patients do sort across providers based on contract terms, this would create adverse selection problems since MCOs would understand that those providers' patients are likely to differ in health care needs. See *infra* in Section V (discussing adverse selection problems).

rejected early efforts to adopt contracting over liability because these efforts entailed contracting over liability through non-negotiable liability waivers presented by medical providers to patients as a condition of their receiving medical care.⁷¹

3. Plausibly Optimal Contractual Liability

Contractual liability proponents assert that contractual liability proposals exist which avoid the search cost and duress problems which impose excessive burdens on patient's decisions to impose liability. One form permits contracting between individual providers and patients, but requires that providers give patients the right to obtain services with or without liability (albeit at different prices). The other form channels all contracting over liability through contracts executed between MCOs and patients when patients select their health plans (and thus before patients need medical care).⁷²

One approach is to require that physicians who contract over liability with patients at the point of service agree to provide treatment to any patient who wants to impose liability (albeit at a higher price). One way to do this is to require that providers be willing to negotiate over liability. Another way is to require providers to engage in two-price contracting over liability.⁷³ 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.

that benefit providers at consumers' expense.

¹¹ The leading case is *Tunkl v. Regents of University of California*, 60 Cal.2d 92, 32 Cal. Reptr. 33, 383 P.2d 441 (1963). Other courts that have followed Tunkl include: *Ash v. New York University Dental Ctr.*, 164 A.D.2d 366, 374 (1st Dep't 1990); *Cudnik v. William Beaumont Hosp.*, 525 N.W.2s 891, 895 (Mich.App. 1994); *Olson v. Molzen*, 558 S.W.2d 429, 431 (Tenn. 1977); *Emory Univ. v Porubiansky*, 287 S.E.2d 99, 106 (Ga. 1981); *Meiman v. Rehabilitation Ctr. Inc.*, 444 S.W.ed 78, 80 (Ky 1969).

⁷² Proposals for entity-level contractual liability include Havighurst, *supra* note 4 (entity-level contractual liability); Danzon, *supra* note 4 (same); see also Richard A. Epstein & Alan O. Sykes, *The Assault on Managed Care: Vicarious Liability, ERISA Preemption, and Class Actions*, 30 J. LEGAL STUD. 625 (2001) (arguing that if MCOs are held liable, this liability should only be contractual). A few scholars advocate complete freedom of contract between individual physicians and their patients. Richard Epstein is the leading proponent of contracting between patients and individual providers. *E.g.,* Epstein, *supra* note 4; Epstein, Contractual Principles, *supra* note 3.

⁷³ See Mark Geistfeld, Imperfect Information, the Pricing Mechanism, and Products Liability, 88 COLUM. L. REV. (1988) (discussing two-price contracting for products liability). 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. 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 10. For a critique of two-price contracting over products liability see Geistfeld, *supra* note 55 (discussing problems associated with information and insured consumers).

An alternative superior solution is to channel contracting over liability through annual insurance contracts executed between patients and MCOs. Under this system, states would reform malpractice liability to impose default liability on MCOs for all patient injuries resulting from erroneous medical care (either by the MCOs or by its affiliated physicians and hospitals). MCOs could then contract with patients to modify or eliminate liability for either their negligence or that of their providers. MCOs also could contract with physicians and hospitals to shift liability to them.⁷⁴ It is argued that MCO contractual liability potentially avoids the "excessive cost" problem, even if each MCO employs a nonnegotiable contract, as long as each employer offers employees a choice between a "liability" plan and a "no liability" plan. In this case, it is argued, patients can obtain liability without incurring excessive search costs because they are presented with both options simultaneously, during open-enrollment, when they can exercise choice in a deliberative manner in advance of needing medical care.⁷⁵

4. Evaluating the Economic Case for Contractual Liability

Accordingly, the economic claim favoring contractual liability cannot rest on nonnegotiable contracting between patients and providers at the point-of-service because this form of contracting is suboptimal. Instead it depends on whether alternative forms of contracting are efficient: specifically, on whether either individual negotiated contracting or MCO contracting is efficient. Proponents assert that they are, because they believe that these forms solve the "cost" problem by solving the search cost problem, and that information problems are not so serious as to undermine the case for contracting.⁷⁶ Yet even if we accept these premises, they are not sufficient to establish that patients necessarily benefit from the ability to contract over liability through either of these forms of contracting. For neither form of contracting is optimal unless patients also derive the same benefit – in terms of enhanced provider investments in safety – from liability imposed by contract as from liability imposed by the state.⁷⁷ Contractual liability

⁷⁴ Proposals for entity-level contractual liability include HAVIGHURST, HEALTH CARE CHOICES, *supra* note 2 (MCO contractual liability); Danzon, *supra* note 4(same); Havighurst, Vicarious Liability, *supra* note 4.

⁷⁵ *E.g.*, Danzon, *supra* note 37, at 11382 (contracting through MCOs would enable patients to make informed choices before they need care). Some also argue 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 10. In fact 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 mimic the behavior of most workers and place a lot of weight on price considerations and pay less attention to quality measures).

⁷⁶ Epstein & Sykes, supra note 10 (information problems associated with MCO contractual liability are not significant): see also Schwartz, supra note 10 (arguing that mandatory products liability is not necessary because customers do not systematically under-estimate product risks).

⁷⁷ Ironically, many opponents contractual liability share the premise that contracting affords equivalent benefits and focus on search costs and information problems. The few exceptions include Arlen &

proponents have never shown that either form of contracting satisfies this condition. This omission is important because reasons exist to believe that it is not satisfied.

Although proponents tend to assume that the introduction of contracting over liability would do no more than allow patients to select their liability regime, this is not the case. It also would alter the structure of liability available to patients. Malpractice liability is collective – in that it affects all patients and providers simultaneously – and is multi-period. By contrast, individual negotiated contractual liability, by contrast, is imposed only by a specific patient on a one provider at a specific point in time; MCO contractual liability is imposed collectively by only a subset of patients, on a subset of providers, for a limited time through a contract which intertwines the liability choice with the purchase of health insurance. Accordingly, contractual liability proponents cannot establish that contracting is necessarily welfare enhancing unless they can show that these structural differences do not affect either the deterrence benefits or the costs of imposing liability.

The next three sections examine whether patients and medical providers engaged in either of these forms of contracting over liability do in fact have optimal incentives to contract over liability. This article first examines negotiable contracting between providers and patients at the point of service, under which individual providers offers patients a choice whether to waive liability or not, either through explicit two-price contracts or by agreeing to negotiate over liability. Section III examines whether this form of contracting provides optimal incentives for patients and providers to adopt malpractice liability reform. Section IV examines whether this form of liability gives patients and providers optimal incentives to contracting about optimal reforms adopted by the state. This article next examines proposals to channel all liability and contracting through MCOs, including those that allow MCOs to offer patients take-it-or-leave-it provisions. In order to focus the analysis on the core economic argument that contracting is efficient, this Article assumes, for the sake of argument, that patients are rational and can accurately assess the costs and benefits of imposing liability.⁷⁸

III. MALPRACTICE REFORM THROUGH INDIVIDUAL CONTRACTING

This section examines the most ambitious claim of contractual liability proponents: that individual contracting over liability is an optimal mechanism to implement malpractice

MacLeod, supra note 13; Arlen, supra note 13; Geistfeld, supra note 55; Wickelgren, supra.

¹⁰ Although this Article assumes for argument's sake that consumers are informed about the costs and benefits of imposing liability, in fact patients probably under-estimate the benefits of liability because patients tend to under-estimate (i) their own need for medical care, see 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), (ii) underestimate the probability of medical error absent sanctions, and (iii) underestimate providers' quality differences. See *supra* note 44 (discussing evidence that patients underestimate quality differences). Contracting in the face of these information problems is likely to harm patients. 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). See, e.g., Arlen, supra note 13 (discussing information problems); see also Geistfeld, supra note 13 (discussing information problems with contractual liability for product defects).

liability reform. Because proponents of this claim assert that optimal reform can be accomplished by contracting between patients and individual medical providers at the point of service, this section focuses on this form of contracting. Since point-of-service adhesion contracts often are inefficient,⁷⁹ the present analysis focuses on non-adhesion contracting at the point of service, either through negotiable liability terms or two-price contracts (which offer each patient a choice between receiving services without liability or paying more to receive services with liability). This section focuses on issues associated with creating optimal reform by contract; the next section examines the closely related issue of incentives to contract in or out of an optimal regime imposed by the state.

Contractual liability proponents make two related claims on behalf of contracted for reform. They claim that contracting is superior to tort because (1) the parties will adopt optimal malpractice liability reforms and (2) contracting will produce beneficial variation in the standard of care. This Section shows that neither claim is correct. Individual contracting over both the standard of care and malpractice liability reform is inefficient because it implicates network externalities and collective goods. And individual negotiated contracting generally is not an optimal mechanism for addressing either network externalities⁸⁰ or collective goods.

This Section first considers the claim that patients and providers will contract for optimal reforms. It shows that this claim is not correct because optimal reforms include those that confer collective benefits; it is well known that individual contracting is a poor mechanism for achieving the optimal amount of a collective good.⁸¹ To be effective medical malpractice liability reform must improve medical entities' (e.g., hospitals) and physicians' investments in expertise and "systemic" care. Expertise and systemic care both improve a provider's ability to treat all of her patients. Expertise and systemic care, thus, are a "collective good" in that a patient's decision to adopt a reform to induce systemic care will benefit other patients if it is successful. Reform to induce systemic care also is collective in that the likelihood that the reform will affect behavior depends on whether other patients adopt it. The fact that optimal reform is a "collective good" implies that individual contracting cannot be relied upon to achieve optimal reform because each individual patient has insufficient incentives to contract for reforms to induce systemic care because his individual decision does not impose sufficient additional liability on his provider to substantially alter systemic investments in care. Moreover, should other patients adopt reforms, he would obtain much of the benefit without paying for it. This suggests that reform is best achieved by collective action – for example, by legislatures -not individual action by contracting parties.⁸²

⁷⁹ See *supra* Section I.B. Contracting through take-it-or-leave-it clauses is examined in Section V. While Section V focuses on MCO contracts, the arguments of that section also apply to adhesion contracts offered by medical providers if the terms are publicly disclosed so that patients (and insurers) know the terms prior to seeking services.

⁸⁰ See generally Kahan & Klausner, *supra* note 70 (contracting can be inefficient in the presence of network externalities).

⁸¹ The next section examines more general problems associated with individual patient-physician contracting which affect all claims that contracting either induces optimal reform or is a necessary component of optimal reform.

⁸² The present analysis does assume individual negotiated contracting. The problems of contracting with commitment are discussed in Section V.

This Section next considers more limited contracting that allows patients and providers to alter the standard of care to assess the validity of the claim that increased variation in the standard of care produced by individual contracting over liability necessarily benefits patients. It shows that this claim is not correct because the standard of care selected by one provider potentially affects other providers since medical training, regulation and treatment development all benefit when providers agree on the standard of care. Individual contracting thus can harm patients and providers because individual patients and providers will contract for the standard of care that maximizes their own welfare, without taking adequate account of the costs to others imposed by the resulting variation in the standard of care.

A. MOTIVATION FOR AND GOALS OF OPTIMAL REFORM

The boldest claim of contractual liability proponents is that patients and medical providers will contract into optimal malpractice liability reforms by contract if given the freedom to do so. This part shows that patients and medical providers cannot be relied upon to contract into optimal reforms because important malpractice liability reforms benefit patients only when imposed collectively and create benefits that extend across all patients. Individual contracting thus will not produce optimal reform because it does not provide enough incentive for patients to adopt such reforms individually and imposes insufficient costs of those who do not.

In order to assess the problems with using contract to reform malpractice liability, it is necessary to identify the problems plaguing the current system and central goals of malpractice liability reform. Proponents of contractual liability appear implicitly to assume that the central problem with malpractice liability is that there is too much of it. Yet a series of empirical studies of malpractice liability reveal that this premise is not correct. In fact, the central problems with the current system are that (1) medical providers with lower than average expected quality do not face high enough additional expected liability and (2) the medical entities that control quality do not face sufficient tort liability to induce them to adequately invest in patient safety.⁸³ The reforms needed to remedy these problems involve extending the reach of liability to induce greater investments in systemic care by physicians and medical entities. Contractual liability is an optimal mechanism to achieve reform only if it provides patients and medical providers with optimal incentives to adopt reforms designed to induce medical entities and individual providers to invest optimally in expertise and systemic care.

1. Need for reform

Malpractice liability currently does not adequately sanction medical providers who

⁸³ 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 ; Danzon, *supra* note 37, at 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 to cost. Danzon, *supra* note 37, 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 51.

provide suboptimal care for several related reasons. First, providers who err are rarely sued, both because victims often do not know that they were the victims of error and because the expected damages for certain injuries (e.g., instant death of an elder person) may be too low to justify the expenses of a suit.⁸⁴ Indeed, on average a provider who errs is sued only 10-12% of the time.⁸⁵ To further exacerbate the problem, patients with legitimate claims often are denied recovery. As a result, providers who give substandard care do not expect to bear the full cost of their negligence (even if each patient receives the full value of his loss). Indeed, a provider whose error injures a patient faces only a 9% chance of being held liable. This is too low to induce optimal investments in safety (given existing damage rules).

The current structure of physician malpractice liability insurance further mutes physicians' incentives to invest in care. Almost all physicians carry medical malpractice liability insurance to protect them from liability for medical negligence.⁸⁶ These insurance policies distort incentives to invest in care because they have 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, all else equal, physicians who under-invest in safety pay the same premiums as those who invest optimally in safety.⁸⁷ Since malpractice

⁸⁴ See David Studdert, et. al., *Claims, Errors, and Compensation Payments in Medical Malpractice Litigation*, 354 New Eng. J. Med. 2024 (2006) (providing evidence that malpractice victims cannot accurately determine the validity of their cases at the time they file).

⁸⁵ In an early study out of California, Patricia Danzon found that only 10% 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 the total number of malpractice claims was only 15% of the number of negligent injuries. Danzon, supra note 1, at 1354 (discussing the Harvard Medical Practice Study). A more recent study based on claims 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). Moreover, 27 percent of the victims of error who did sue did not recover. Studdert et al., *supra* note 84, at 2038. Victims of error are particularly likely to be denied recovery if they proceed to trial. David Studdert and Michelle Mello, *When Tort Resolutions are "Wrong": Predictors of Discordant Outcomes in Medical Malpractice Litigation*, J. LEGAL STUD. (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 , at 312; Krizek, *supra* note , at 1360-61.

⁸⁶ 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. In addition, there is evidence that malpractice liability insurance may provide protections that go beyond the stated policy limits because patients' recoveries almost never exceed medical providers' policy limits, even when the verdict did exceed the limits. Kathryn Zeiler et al., *Physicians' Insurance Limits and Malpractice Payments: Evidence from Texas Closed Claims, 1990-2003*, J. LEGAL STUD. (forthcoming 2007).

⁸⁷ Premiums are adjusted to reflect a physician's specialty, time in practice and location, but not her claims experience. Danzon, *supra* note 37, at 1360-62; see Mello & Brennan, *supra* note 51, at 1616-1617. 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 51, 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*

liability affects doctors primarily through the premiums they pay, this premium structure helps insulate low quality doctors from the costs of their medical errors.⁸⁸ It thus undermines the deterrence impact of tort liability.⁸⁹

The current structure of physician malpractice liability insurance not only fails to deter providers from under-investing in care, it also places excessive costs on physicians who do invest optimally in patient welfare because high quality physicians do not receive a reduction in liability insurance rates to match their lower expected risk of liability.⁹⁰ Indeed, this insurance-rate structure is the primary reason why malpractice liability imposes an excessive burden on higher quality physicians. The "non-experience-rated" insurance problem appears to have many causes. One of them is that insurers cannot easily sort low quality physicians from high quality ones based on litigation payouts because the vast majority of physicians (good and bad alike) are never sued and the few that do face suits with payouts are unlikely to be sued successfully again. The system could be improved by reforms that shift the incentive to regulate physicians from liability insurers, which have poor information on provider quality, to hospitals and health insurers, which have detailed information on quality.⁹¹

This conclusion stands in contrast to the oft-repeated claim that malpractice

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.

See *supra* note 86 (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 revenue 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 fee-for-service insurance, with its reliance on physician-controlled referral, results in more quality screening of specialists than does MCO insurance); 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 insured through MCOs are more likely to obtain coronary artery bypass graft surgery at high mortality hospitals than patients with fee-for-service insurance). Under-reporting of errors to the National Practitioner's Data Base (NPDB) also mutes the effect of market forces. Accord 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 did not report to the government any "adverse action" against any affiliated physician for incompetence or misconduct over a ten-year period and that HMOs reported a total of only 715 "adverse actions" in ten years).

⁸⁹ 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 (II)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). Physicians with low error rates also would benefit from a required disclosure of the causes of medical error because this would reduce their risk of erroneous suit. Although the evidence suggests that relatively few wrongful claims are paid, they are nevertheless filed which imposes a burden on the doctor. Studdert et al., *supra* note , 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). Disclosure would reduce this problem since evidence suggests that patients do not file erroneous claims frivolously; they file them because they do not have enough evidence to determine whether their injury was caused by error. *Id.*

⁹⁰ See notes ____ and accompanying text.

⁹¹ See *infra* note 98.

liability is random -- falling on physicians regardless of whether they erred.⁹² This claim is not supported by the most recent evidence, which shows that 82 percent of the malpractice liability claims that resulted in payment involved situations where it appears more likely than not that the physician erred.⁹³ Moreover, analyses of the litigation errors that do occur reveal that they do not favor patients on average. Indeed, most litigation errors favor physicians, with 60 percent of improperly resolved claims decided in favor of the physician and only 40 percent of decided in favor of the patient. Surprisingly, jury trial errors were particularly likely to favor the physician, not the patient.⁹⁴ Accordingly,

⁹⁴ Studdert, et. al, *supra* note 84, at 2028. Physicians in some specialties nevertheless may face an

⁹² Thus, the problems with the system do not include the oft-repeated claim that liability outcomes are random. See Epstein & Sykes, supra note 72, at 642 (malpractice liability, while desirable in theory, may not be beneficial in practice because it is imposed randomly). Those who claim tort liability is imposed randomly often cite the Harvard Medical Study. See Epstein & Sykes, supra note 72, at 642 (citing to the Harvard Medical Study as evidence that courts often focus on cases where physician did nothing wrong). The Harvard Medical Study is a very useful 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, 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 Medical Study can be expected to result in claims being coded as "no error" claims, even though it is more likely than not that the physician did err. First, the Harvard Medical Study had two physicians review each claim; claims were not coded as involving error unless both doctors agreed that error had occurred. Moreover, this study evaluated the merits of each claim using written hospital medical records. However, written hospital records do not document most medical errors. Andrews, supra note 22 (Most of the errors detected by on-site observation were not recorded in the hospital's written records). These design features served the purpose of the Harvard Medical Study, which was to provide a conservative, but in the end startling, estimate of the rate of medical error. This design does not yield a good measure of litigation accuracy, however. See *infra* note 93; cf. Andrews, supra note, at 312 (On-site evaluation of medical error reveals that eleven out of thirteen patients who filed tort suits were the victims of treatment-induced adverse events).

This is not the only claim of malpractice liability critics that does not withstand empirical scrutiny. For example, notwithstanding the recurring claim that malpractice awards are spiraling out of control because juries favor patients, analysis of malpractice litigation error reveals that, when juries err, they generally err in *favor of* physicians. Moreover, analysis of settlements and jury verdicts reveals that malpractice settlements and verdicts have not shown a significant increase in real terms; the apparent nominal increase appears to be attributable primarily to medical inflation. Bernard Black, *et. al., Stability Not Crisis: Medical Malpractice Outcomes in Texas, 1988-2002, 2 J. EMPIRICAL LEGAL STUD. 207, 209 (2005) (Controlling for medical inflation, damages evidence an annual increase of only 0.1-0.5% per year, and this increase is either insignificant or marginally significant). Claiming rates per capita also appear to be stable. <i>Id.,* at 209.

⁹³ Studdert, et. al., *supra* note 84 (a review of cases requiring payment by a physician or her insurer found that the physician probably erred 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 find that the vast majority of patients who receive payments through jury verdicts and settlements are the victims of error. Moreover, conditional on recovery, expected damages are higher when the physician erred. *E.g.*, Henry S. Farber & Michelle J. White, *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, *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, *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, *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).

evidence suggests that the litigation system itself on average requires payment only when it is more likely than not that the provider erred. A central goal of malpractice liability reform should be to channel this liability to those directly responsible for errors.

Another fundamental problem with the current malpractice system is that it targets liability at individuals who cause error, instead of the institutions -- hospitals and MCOs – with the greatest ability to reduce the probability of error. 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.⁹⁵

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 employ 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.⁹⁶ Hospitals also often escape liability for negligence by hiring physicians (and indeed entire Emergency Rooms) as independent contractors. As a result, hospitals have too little incentive to screen and monitor physicians for quality issues.

2. Nature of Optimal Reform

This analysis suggests that optimal malpractice liability reform must include reforms that increase physicians' and medical entities' incentives to invest in care; these reforms should be designed, at least in part, to induce greater investment in systemic care (such as improved administrative systems, supervision, and health care technology) and expertise.⁹⁷ This implies that we cannot be confident that contracting would produce optimal reform unless patients would have optimal incentives to contract into reforms that encourage individual physicians and medical entities to invest in expertise and systemic care.⁹⁸

excessive risk of payouts even when there is no error. Cf. David Studdert and Michelle Mello, *When Tort Resolutions 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). This problem in part arises because parents of children damaged at birth face a choice between financial ruin and suing a potentially innocent, but insured, medical provider.

⁹⁵ E.g., Mello & Brennan, *supra* note 51, at 1627; Arlen & MacLeod, *supra* note 8; Abraham and Weiler, supra note.

⁹⁶ Arlen & MacLeod, *supra* note 13.

⁹⁷ See citations in note 28 *supra* and Stephen M. Shortell & Sara J. Singer, *Improving Patient Safety by Taking Systems Seriously*, 299 JAMA 445 (2008).

⁹⁸ 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 (hospital level liability for malpractice); Mello & Brennan, *supra* note (hospital level liability for malpractice); Havighurst, *Vicarious Liability, supra* note (supporting contractual enterprise liability for MCOs); Havighurst, Health Care Choices, *supra* note, at 171 (same); 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); cf. Danzon, *supra* note 37, at 1385 (MCO liability for coverage decisions but not provider malpractice). Entity-level liability is not the only important

One effective way to achieve this goal would be to impose liability for all malpractice claims on medical entities – MCOs or hospitals – and allow these entities to contract with physicians to shift liability to them. Malpractice liability would be more effective if liability were imposed on medical entities because much (if not most) medical error appears to result from decisions made by entities that either affect care directly or influence the quality of care that physicians can provide. Entity-level liability would provide the entities with financial incentives to use their influence to make optimal decisions regarding the costs and quality of care. Entity level liability also would induce entities to make superior investments in systematic care and to better monitor the quality of providers with whom they contract. MCOs and hospitals also would have incentives to use their substantial data on health outcomes to develop protocols for physicians based on due consideration to both cost and health outcomes.⁹⁹

Malpractice liability would function better as a deterrent under entity-level liability because entity-level liability is not distorted by liability insurance. Hospitals and MCOs either self-insure or purchase liability insurance that *is* experience-rated.¹⁰⁰ Thus, entities subject to liability would have a strong incentive to reduce their risk of error. Entity-level liability also would reduce the distortions created by physician liability insurance because it would induce entities to use their rich data on physician quality to ensure that physicians who under-invest in quality bear more costs than those who do not.¹⁰¹

B. WILL PATIENTS CONTRACT FOR OPTIMAL REFORMS?

The preceding analysis suggests that we can test the claim that patients and providers necessarily will contract for any reform that is optimal by examining whether they have optimal incentives to negotiate for reforms that induce medical entities (and

change, but it is one of the most important. For a discussion of other needed reforms see, e.g., Paul Weiler, Reforming Medical Malpractice Liability in a Radically Moderate – and Ethical – Fashion, 54 DEPAUL L. REV. 205 (2005) (same).

⁹⁹ MCOs affect quality through their authority to select the physicians and hospitals on their plans (to the extent permitted by state law), their ability to influence the treatment provided (through their ability to use utilization review to deny coverage for treatments deemed "unnecessary,") and through the financial incentives they give to providers to favor cost or quality. Hospitals also affect quality through their control over systems and staffing, as well as their ability to deny providers privileges to practice in the hospital. For a detailed discussion of the benefits of MCO liability see Arlen & MacLeod, supra note 13; see also Shortell & Singer, supra note 97 (to induce good systems "health care organizations and practitioners must have shared financial and regulatory incentives for achieving safety objectives or penalties for not doing so).

¹⁰⁰ *E.g.*, Mello & Brennan, *supra* note 51, at 1617-1618.

¹⁰¹ Physician oversight by properly-motivated entities is superior to incentives provided by the tort system because, as previously noted, physicians respond to the threat of tort liability by purchasing nonexperience-rated liability insurance. MCOs and hospitals could (in theory) use their control over access to preferred networks and practice privileges to sanction physicians who regularly harm patients, in ways not affected by liability insurance. Moreover, entity level liability might induce these entities to provide better patient-health-adjusted information about physicians' outcomes to patients as a way of encouraging physicians to invest more in care. Finally, entity-level liability might improve the under-claiming problem because patients injured by medical care in a hospital would no longer be deterred from suit by the prospect of having to identify precisely the individual wrongdoer. These measures often would require MCOs and hospitals to invest in both equipment and changes in administrative systems to ensure broad monitoring of outcomes.

physicians) to take more cost-effective investment in "systemic care" and expertise. We can evaluate their incentives to contract into such a reform by examining their incentives to contract into entity-level liability (assuming it would achieve the desired effect on systemic care and expertise).

Accordingly, we can assess whether patients have optimal incentives to contract for reform in a relatively straightforward way by focusing on a simple question: Does each patient who would benefit (on net) if the state were to reform malpractice liability to induce greater systemic care by medical entities derive an equivalent benefit by paying to impose this reform through a contract negotiated with an individual provider. If this is in fact not the case, then contracting over liability at the point-of-service will not produce optimal reform because some (many) patients required to contract for optimal reform will reject it on the grounds that the benefits do not exceed the costs, even though they would have benefited from the reform if adopted by the state. Patients who reject such reforms under these circumstances are worse off than they would be if the state imposed malpractice liability reform by fiat.¹⁰² We can test this by focusing on entity-level liability. A finding that state-adoption of reforms, such as entity-level liability, that increase systemic care confers greater net benefits on patients than an identical reform adopted by contract would demonstrate that patients do not have optimal incentives to contract for liability reform. Such a finding not only would refute the claim of some contractual liability proponents that patients will contract into entity-level liability if and when it is optimal to do so.¹⁰³ It also undermines the broader argument for contractual liability because proponents hold that contracting provides optimal incentives to contract into any reform whether designed to increase patient-individual liability or entity-level liability.

Accordingly, to test the claim that patients have optimal incentives to contract for a reform designed to induce optimal investment in systematic care and expertise, we examine a patient's incentives to negotiate for entity-level liability in his contracts with individual providers, assuming that the patient would benefit on net if the reform were imposed by the state. We then consider whether the patient would obtain the same benefit from imposing the reform by contract.¹⁰⁴

1. Identifying the Costs and Benefits of Reform: Deterrence vs. Compensation

In order to compare the benefits to patients of state-imposed reforms with the benefits of a similar reform imposed by contract, we need to identify the primary benefit to patients of this type of liability reform. Specifically, we need to determine whether patients benefit from reform through the incentives it provides or whether they also derive an independent benefit from the increased right to compensation.

Patients derive a net benefit from reforms such as medical entity liability, which are intended to improve investments by medical entities and physicians in systemic care and expertise, if they derive a *net* benefit from the increased investment in care induced by the reform. In the case of entity-level liability, these investments include improved *ex ante*

¹⁰² Robinson, *supra* note 3, 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 them as would be achieved through paternalistic intervention").

¹⁰³ Epstein & Sykes, *supra* note 72.

¹⁰⁴ While we focus on medical entity level liability, the present analysis applies as well to any reform designed to improve incentives for medical entities and physicians to invest in systemic care and expertise.

screening and on-going monitoring of medical provider quality by MCOs and hospitals (depending on the form of liability), improved investments in health care technology designed to detect and prevent error, superior systems for managing patients, improved dissemination of information about effective treatment protocols, and improved investment in expertise. Because we are considering whether a patient who benefits on net from such a reform would adopt it by contract, we focus on the patient for whom the deterrence benefits of the investments in safety produced by entity-level liability exceed the per patient cost of the increased investment in care and the expected liability needed to induce them.¹⁰⁵

Effects of Malpractice Liability

	Benefit		Cost
Deterrence Function	Improved outcomes from increased care (systemic & patient-specific) by entities and physicians	~	Cost of investment in care
Payment of Compensation (Insurance function)	Expected right to compensation if injured by medical negligence	<	(i) Higher medical costs equal to expected compensation value of Payment to Expected legal costs

(*for patient who benefits on net from liability)

These incentive benefits – arising from the greater investment in systemic care and expertise induced by the reform - constitute the central benefit to a patient of malpractice liability reforms such as entity-level liability. The fact that these reforms also expand each patient's ability to obtain compensation for medical injuries does not provide an independent reason for patients to adopt these reforms. Patients would not contract into such reforms purely for the promised right to compensation, independent of any incentive effect because patients generally do not derive a net benefit from liability when used purely to provide them with compensation for injuries caused by medical error. The right to compensation that malpractice grants to patients is not free. To the contrary, medical providers and insurers view expected liability as a cost of providing treatment and thus pass all expected liability costs on to patients in the form of higher medical bills or insurance premiums. This transforms malpractice liability into a form of insurance against medical error. When viewed *purely* as a form of insurance, however, malpractice liability is a bad deal for patients because providers must charge patients more to cover their per-patient expected liability costs than the amount that patients can expect to receive. In order to break even, medical providers must charge each patient an amount equal to the provider's per patient expected liability payment and legal fees. This amount exceeds the per patient

¹⁰⁵ As we will see, this cost includes the net negative impact on patients from the fact that the expected benefit to patients of the compensation received is less than the expected cost he bears as a result of this right to compensation.

expected benefit of liability by an amount equal to the provider's own legal fees¹⁰⁶ plus the patient's own expected legal costs. Given average legal fees, this implies that medical providers often must charge more than twice as much to cover their expected liability to the patient as the patient can expect to receive in compensation.¹⁰⁷

Thus, patients would not seek liability reform for the compensation liability provides.¹⁰⁸ Patients seek, and benefit from, liability reform through its ability to induce greater investments in care. This implies that we can determine whether patients have optimal incentives to reform malpractice by examining whether an individual patient negotiating with an individual provider over liability would obtain the same deterrence benefit from using the contract to impose entity-level liability (or a similar reform) as he would obtain (with respect to that provider) if the state adopted the reform by fiat.¹⁰⁹

2. Inefficient Incentives to Contract for Optimal Reform

This part shows that patients do not have optimal incentives to contract for entitylevel liability because each patient gains more when the state adopts entity-level liability

Moreover, patients receive only a portion of any recovery awarded because 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, the cost to patients of the right to compensation exceeds the expected benefit to them of the right to compensation in those situations where patients generally only expect to sue if they suffer a serious permanent injury or death and expect that the injury will decrease their marginal utility of wealth. See Philip Cook & Daniel Graham, *The Demand for Insurance and Protection: The Case of Irreplaceable Commodities*, 91 QUAR. J. ECON. 143 (1977) (showing that patients are better off when they do not purchase fair insurance for injuries that leave the patient with a lower marginal value of wealth); see also Mark Geistfeld, *Manufacturer Moral Hazard and the Tort-Contract Issue in Product Liability*, 15 INT²L REV. L. & ECON. 241, 243-44 (1995) (manufacturer liability for full *ex post* losses is suboptimal if consumers do not value compensation for nonpecuniary losses); see generally Jennifer Arlen, *Tort Damages: A Survey*, in Encyclopedia of Law & Economics (Boudewijn Bouckaert and Gerrit De Geest, ed., 2000) (discussing the literature on this issue).

¹⁰⁹ We address this by examining incentives to adopt entity-level liability, e.g., hospital liability or MCO liability. The analysis would apply as well to other reforms intended to induce entities to invest more in systemic care – which is a well-recognized critical goal of liability reform.

¹⁰⁶ See Studdert, et. al, *supra* note 84 (finding that total administrative fees per claim average 40-50% of the recovery).

¹⁰⁷ Thus, holding quality constant, a medical provider will charge each patient for the compensation liability provides a premium equal to Pr(injury)*Pr(recovery)*(Damages + provider's litigation costs). This right to compensation confers an expected financial benefit on the patient of only Pr(injury)*Pr(recovery)*(Damages – plaintiff's attorney's fees). Given the enormous attorney's fees on both sides, the former is likely to exceed the latter for all but the most risk averse patients (especially given the availability of first-party health insurance and life insurance). See *infra* note 108.

¹⁰⁸ Beyond this, patients with health insurance may benefit even less from compensation to the extent that physicians standardize their patient charges and charge all patients an amount that include some coverage against increased health care costs induced by medical error that the patient is already covered for through his health insurance. Thus, in states that have eliminated the collateral source rule, the compensation provided by tort liability for medical costs does not benefit patients as much as the gross payment would suggest. Even if patients' insurers reduce their premiums to reflect the fact that they may get reimbursed by a malpractice liability payment, the reduction will be less than the expected value of the medical costs because it is costly for the insurers to obtain this compensation.

globally than when he does individually through contract. Given this, patients who would benefit from the adoption of entity-level liability would be better off if the state adopted reforms¹¹⁰ than they would be if required to contract for reform because they do not have adequate incentives to impose entity-level liability by contract.

State imposed entity-level liability – whether on an MCO or hospital – benefits patients by inducing hospitals, MCOs and individual physicians to invest more in care. Of particular importance, entity-level liability will induce MCOs and hospitals to make global changes in their administrative systems, protocols, staffing, mechanisms for monitoring providers, and durable investments in equipment and expertise. MCOs and hospitals facing wide-scale liability also may redraft contracts with providers to encourage improved quality, and not just reduced costs. Finally, this wide-spread liability might induce MCOs to share information about physician quality with malpractice liability insurers, thereby providing the information needed to allow insurers to experience-rate their policies.¹¹¹ Should the state impose entity-level liability by fiat, all patients would obtain the benefit of the systemic care and expertise induced by this reform.

A patient would not get this same benefit if he contracted to impose this reform individually on his providers, however, because his individual decision to impose entity-level liability will have little effect on the provider's total expected liability, and thus is unlikely to induce the provider to make optimal investments in systemic care and expertise. Patients have suboptimal incentives to contract for reforms to induce systemic care for two reasons. First, optimal systemic care is "lumpy" (in the sense of being discontinuous in patients); second, it is a collective good.¹¹² Systemic investments in care -- such as general changes to administrative systems, staffing, the purchase of equipment, the implementation of quality monitoring – are "lumpy" because providers cannot respond to a marginal

¹¹⁰ 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 prevents 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. Actna 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. Cf. 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).

¹¹¹ See *supra* Section III.C. Moreover, with MCO liability, states would not need to adopt "any willing provider" laws to require MCOs to contract with all medical providers because states would not need to worry that MCOs would refuse to contract with high cost (but high quality) physicians.

¹¹² Investments in care are collective in that when a physician makes an investment it confers a benefit on many patients at once. Some of these investments are "continuous," in that a physician can benefit patients even with a relatively small additional investment. Certain investments in expertise (e.g., reading medical journals) likely fall into this category. Many of these investments are "lump" or "discrete," however, in that the physician does not confer any benefit unless he spends enough to complete the investment. Equipment purchases fall into this category in that a provider does not benefit patients by setting aside enough to cover 1/100th of the purchase price of an MRI. Patients do not benefit until the MRI is purchased. Expenditures to alter administrative systems similarly require lumpy investments since a single dollar spent on administrative changes likely will have no effect on patient welfare.

increase in expected liability by making a marginal change in administrative systems or buying a marginal portion of equipment. Instead, the provider must make (or not make) a discrete investment in care: e.g., installing new electronic prescription order entry systems, revising administrative systems for handling patients across an entire hospital (or division), or purchasing a new expensive piece of equipment. Furthermore, these investments are not simply discrete, they are expensive. In particular, they are costly when compared with the resulting impact of the investment on the provider's expected liability to a *single* patient.¹¹³

This brings us to the second important feature of systemic investments: the benefits are collective. Accordingly, the conclusion that the cost of a discrete system reform exceeds the benefit of the investment with respect to a single patient does not imply that the investment is not cost-effective because the central feature of systemic investments is that their benefits are not localized on a single patient; they are collective. A provider who improves administrative systems, monitoring, expertise, and health care technology improves the expected welfare of every patient seeking care. It is this collective benefit on *all of* the provider's patients that justifies the investment. In turn, it is the *collective* imposition of entity-level liability for harms to all of the provider's patients that induces optimal investment in systemic care and expertise.

Because investments in systemic care are both discontinuous and collective, individual contracting over liability cannot lead to optimal malpractice liability reform. An individual patient who would benefit from state-imposed entity-level liability often will not negotiate to impose entity-level liability because his *individual* decision to do so will not materially alter his provider's incentives to make substantial investments in systemic care.¹¹⁴ Thus a rationally informed patient will not pay to impose this reform even when he would benefit from the greater care that would be induced if all patients joined together to impose the reform.

Moreover, the patient who makes this rational, self-interested choice not to impose reform can do so without regretting his choice should other patients select reform. After all, should a substantial number of other patients impose this reform, every other patient will reap the benefit of any resulting improvement in the provider's systemic investments in care. This free-rider problem further undermines incentives to contract individually into liability. Accordingly, if patients are as rational and informed as contractual liability proponents insist, then individual contracting cannot produce optimal liability reform because rational, informed patients know that they have no reason to spend their own money on reforms that will not affect their own welfare. This conclusion holds even when state-imposed collective reform is welfare enhancing.

¹¹³ Liability for a single patient will not induce substantial discrete investments because the hospital will compare the cost of that investment against the marginal benefit – as measured by the effect of the investment on the hospital's expected liability for that patient. This is based on the impact of the investment on the probability of error, discounted to reflect the fact that most patients who are victims of error do not sue and many (if not most) of those who do sue do not recover substantial damages. See *supra* Section I.A and III.B.

¹¹⁴ Incentives are further muted because many investments are made pre-contract. For a discussion of whether contracting can induce optimal pre-contractual investments in quality see *infra* Section IV.

Example

The claim that patients have inefficient incentives to contract for liability reform is easily illustrated using the following numerical example. Consider a hospital with 100 identical risk neutral patients. The hospital currently has a 1 in 10 chance of imposing a \$1,000 loss on each patient. It could reduce this risk to 1 in 100 by investing \$3,000 in systemic post-contractual care. This investment is cost-effective because the \$3,000 expenditure reduces each patient's expected costs from \$100 (= 1,000 x 1/10) to \$10 (= 1,000 x 1/100), which is a per patient benefit of \$90. This yields a total expected benefit of \$9000, which far exceeds the \$3,000 cost of this investment. The state could realize the \$6,000 benefit of inducing this systemic investment in care by imposing liability on the hospital. The hospital would spend the \$3,000 to reduce its collective expected liability by \$9,000. This would enhance patients' welfare even though the hospital would charge them an additional \$30 for services.

Care	Prob. Error	Harm from Error	Patients	Net Social Costs (Hospital costs with Liability)
0	1/10	1,000	100	1,000(1/10)(100) = 10,000
3,000	1/100	1,000	100	3,000 + (1,000)(1/100)(100) = 4,000

Social Cost/Benefit of Entity-Level Liability

Entity-level liability would benefit each patient. Each patient would happily pay his fair share of the cost of care (\$30) to obtain the gain of \$90. Moreover, liability would enhance welfare even if we recognize that this mechanism is not free: in that, in addition for charging for care, the hospital would charge each patient \$10 to cover its expected liability to the patient but each patient must pay 30% of any recovery in attorney's fees. In this case, the patient would pay the hospital a price of \$40 for services (\$30 for care plus \$10 to cover the hospital's expected liability) and would suffer a net uncompensated injury of \$3 (because he has a 100% chance of suffering an injury of \$1,000, receiving net compensation of \$1,000-300= 700). This results in total costs with reform of \$4,000, which are far less than those without (\$10,000).

Liability Reform	Hospital's Cost Care Per patient	Patient's Exp. Harm	Net Expected Compensation	Patient's Exp Costs
No	0	1,000 (1/10) = 100	0	100
Yes	30	1,000 (1/100) = 10	10-3 = 7	40 + (.01)(1,000 - 1,000 + 300) = 43

Per Patient Costs/Benefits State-Imposed Entity-Level Liability

Now consider per patient costs and benefits of imposing reform by contract. Consider the first patient contracting. The patient faces the following costs and benefits of contracting for liability reform. If he imposes the reform, the provider will not increase its expected care because care would cost \$3000, but would only reduce the hospital's expected liability *to the single patient* contracting with it from \$100 to \$10. This savings is not enough to induce care.¹¹⁵

Given this, the only benefit to the patient of imposing entity-level liability is that this ensures he is compensated for any injuries. But, as already explained, patients will not impose reform purely for compensatory reasons because the amount that providers will charge them for the right to compensation exceeds the expected benefit of compensation to patients. Accordingly, each patient will eschew malpractice liability reform even though every single patient would be better off if the state imposed the reform by fiat.

Liability Reform	Hospital's Cost Care Per Patient	Patient's Exp. Harm	Net Expected Compensation	Patient's Exp Costs
No	0	100	0	100
Yes	0	100	100-30 = 70	100 + (1/10)(1,000 - 1,000 + 300) = 130

Per Patient Costs/Benefits Contracted-For Entity-Level Liability

Accordingly, individual contracting is not an effective mechanism for achieving effective malpractice liability reform (even if patients are sufficiently informed to know which reforms would be beneficial) when a primary benefit of the reform is to induce investments in collective care. Individual contracting is an inefficient mechanism for achieving reform because it requires patients to contract individually for a good (reform) that provides collective benefits. It is well known that individual contracting will not lead to optimal provision of such goods.¹¹⁶ This suggests that state legislatures cannot avoid the difficult task of adopting a more effective malpractice liability system by delegating the job to contracting parties.

C. CONTRACTING FOR STANDARD OF CARE VARIABILITY

Contractual liability proponents also assert that contracting would be beneficial even if contracting over reforms was limited to contracting over the standard of care. They claim that social welfare would be enhanced if patients were allowed to contract individually for the standard of care commensurate with their willingness-to-pay for safety so long as patients engage in informed and voluntary contracting.

This claim is predicated on the belief that informed patients will contract for the degree of variation in care that is socially optimal. This is not the case. Even if we could assume that patients will contract for the level of care which is optimal for them (which they will not),¹¹⁷ individual negotiated contracting over care is not efficient because it is an

¹¹⁵ The same result holds if the patient expects all the others to contract into liability, as can be seen *infra* Section IV.

¹¹⁶ This analysis of the problems with two-price contractual liability also affects any form of individual provider contracting that ensures that patients can negotiate individually over liability at the moment of contracting.

¹¹⁷ See *infra* Section IV (discussing collective goods problems that cause patients to contract out of the optimal level of care).

expensive mechanism for determining care and patients will not contract for the optimal degree of variation in the standard of care.

Individual negotiated contracting would be an expensive way to regulate medical care because non-standardized contracting for reform would require millions of individual contract negotiations. This would be expensive to achieve. The costs would be even higher if reform includes entity-level liability, because negotiations for these reforms would have to reach beyond the parties involved directly in the service agreement: e.g., MCOs and hospitals.

More important, individual contracting over care is not an optimal mechanism for regulating care because patients and providers have incentives to contract for more variation in the standard of care than is socially optimal because they will not take full account of the "network benefits" associated with providers aspiring to a commonly agreed upon standard of care.¹¹⁸ Physicians' desired care levels are interdependent because physicians depend on a complex inter-dependent network of relationships for the training and regulation of doctors, providing care, and determining optimal treatment protocols. Each stage of the system – from the training of physicians, to the "team" provision of medical care, to the development of diagnosis and treatment protocols – functions more effectively when providers agree on the standard of care.

Most significant medical care involves teams of providers – often operating out of different practices -- who must coordinate care.¹¹⁹ This coordination is greatly facilitated by a common understanding of the desired goal of medical treatment. Coordination is important not only across providers but also across patients. No where is this more evident than in the hospital context. To control error, hospitals need to train nurses, aides, interns and residents to follow automatic standard protocols and procedures in all similar situations. This enables providers to make quick, accurate, automatic decisions in stressful, time-sensitive situations. Allowing hospital patients – and the physicians practicing within them -- to contract for whatever level of care maximizes their joint welfare would undermine this system of standardizing. Also, it would be very costly to allow individualized standards of care within a hospital because each nurse, administrative aide, and physician who assumes care for a patient during his hospital stay can do so more effectively when they can adhere to standard protocols, without having to adjust the care for each patient to meet the level of care for which they contracted.

This need to standardize protocols extends beyond the individual hospital to the medical system as a whole because substantial variation in the standards governing appropriate medical care would increase the cost of 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, a physician in theory can obtain training at one hospital (with one patient base) and subsequently apply this training in another part of the country following her residency knowing that she was trained to provide the best care for the patient (within the constraints

¹¹⁸ See generally Kahan & Klausner, *supra* note 70 (contracting can be inefficient in the presence of network externalities).

¹¹⁹ See Pham, et. al., *supra* note 72 (most Medicare beneficiaries are under the care of at least two primary care physicians and five specialists working in four different practices).

presented by her patients' insurance). This national system would be challenged, however, if contracting resulted in hospitals adopting dramatically different standards of care, because physicians trained in hospitals whose patients contracted to receive minimal care would be taught significantly different treatment protocols from those trained in hospitals whose patients are entitled to treatment that guarantees the best outcomes.¹²⁰

The benefits of standardization extend as well to the regulation of medical care. It would be very difficult and expensive for courts to adjudicate medical malpractice claims if contracting produces substantial variation in the standard of care. Variation would be costly because courts and parties would not derive as much benefit from prior cases if these cases involve contracts with different standards for liability.

Consequently, the medical system functions best when there is considerable standardization of the goal of medical care – both within and across providers and patients – and not when each patient obtains the level of care that maximizes his individual welfare. An optimal system would produce the level of variation in the standard of care that achieves the optimal balance between the individual benefits of variation and the systemic benefits of uniformity. Contractual liability will not lead patients and providers to contract for care standards that reflect the optimal trade-off between the uniformity and variation, however, because each individual patient contracting over liability obtains the full benefits of obtaining the standard of care commensurate with his willingness-to-pay for safety, while externalizing most of the costs of increased variation onto other patients. Individual providers also generally do not bear the full costs to the system associated with variation in the standard of care. Thus, contracting will produce more variation than is optimal, to the detriment of all.

Moreover, to the extent that providers and patients do converge on agreed upon levels of care, we cannot be confident that they will converge on the optimal standard of care. As a result of network effects, large insurers and teaching hospitals will have disproportionate power to determine the level of care because it is less costly for smaller providers to adhere to the level of care set by large insurers and teaching hospitals than to contract for their own standard of care, even if the other standard would be preferable. The preferences of patients contracting with these market makers thus would impose external costs on other patients.¹²¹ Moreover, the resulting uniformity would largely eliminate one of the principal asserted benefits of contractual liability: its ability to allow for diversity in actual or effective standards of care.¹²²

¹²⁰ 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.

¹²¹ Michael Klausner, *Corporations, Corporate Law, and Networks of Contracts,* 81 VA. L. REV. 757 (1995) (standard terms may be inefficient because of network externalities); See Kahan & Klausner, *supra* note 70 (standard terms may be inefficient because of learning and network externalities); Kornhauser, *supra* note 70, at 1174-75, 1177-79 (inefficient standard terms can occur even when there are no bargaining defects because of search costs, consumer irrationality, bounded memory).

¹²² Convergence on a uniform term also would raise the question of why we need to achieve this uniformity through costly individual contracts instead of through the state. If patients are as informed about the costs and benefits of liability as contractual liability proponents must believe them to be, and are sufficiently attentive to the liability issue to induce optimal contract terms, it is not clear why they would not be sufficiently informed and attentive to induce legislatures to adopt optimal reforms. After all, many of the pathologies of interest group politics – e.g., rent-seeking – arise because citizens do not already know the costs and benefits of a legal rule and do not attend to the issue. These problems with state action would be

IV. NEGOTIABLE INDIVIDUAL CONTRACTING AT THE POINT OF SERVICE

The conclusion that states must assume responsibility for malpractice liability reform raises the question of whether states that implement malpractice liability reform nevertheless should incorporate contracting over liability into their reform proposals. Contractual liability proponents argue that states should include these provisions on the grounds that contracting can only enhance patient welfare as long as states ensure that patients are adequately informed and have an effective choice about whether to impose liability. They claim that the opportunity to contract over liability cannot hurt patients because all patients who benefit from liability will impose it by contract. The only patients who will waive liability are those who are harmed by the state's imposition of liability by fiat. Those patients – and only those patients – would use their right to contract out of state-imposed liability into a form of liability that benefits them more. Moreover, contractual liability proponents hold that this claim applies both to liability employed to induce investments in care post-contract (where incentives do operate) and to liability used to induce care pre-contract. The assumption that patients have optimal incentives to contract into liability that induce pre-contractual care turns on the argument that providers will offer liability – and patients will accept this offer – because liability benefits patients by allowing them to distinguish high quality providers from low quality ones.¹²³

This section examines this claim that states adopting optimal reforms would enhance patient welfare by allowing patients to contract around those reforms with individual providers through voluntary negotiated contracts.¹²⁴ To test this claim, this Section considers a patient living in a state that has adopted an optimal malpractice liability regime who benefits on net from liability imposed by fiat. We then consider whether this patient necessarily would retain liability if allowed to contract over it with his individual provider by examining whether he derives the same deterrence benefits from imposing liability by contract than he obtains when the state imposes the identical regime.

This section shows that, contrary to the claims of contracting proponents, patients who benefit from an optimal regime do not derive the same benefit from the decision to

The claim that physicians can use contracting over liability to signal quality cannot possibly be valid unless states first adopt reforms that end the distortions created by individual physician malpractice liability insurance. As long as physician malpractice liability insurance is not experience-rated, high quality physicians cannot use the offer to bear liability to signal quality. When liability insurance is not experience-rated, lowquality physicians can mimic the liability contracts of high quality physicians by offering to bear liability and then purchasing insurance. Since the insurance price for low and high quality physicians is the same, the lowquality ones do not pay a significant added penalty when they bear liability. Patients, knowing this, will attach no signaling value to an offer to bear liability. Accordingly, contracting over liability cannot possibly generate a separating signaling equilibrium unless reforms are implemented that induce reforms in malpractice liability insurance.

muted if citizens – and thus presumably the state – are perfectly informed about the effects of a legal rule; attend to the issue; and benefit from a uniform solution. See generally DENNIS C. MUELLER, PUBLIC CHOICE III, Chap. 15 (2003) (discussing the economic theory of rent-seeking).

¹²³ See *supra* Section II.B.

¹²⁴ Providers can ensure voluntariness either by agreeing to negotiate with patients over liability terms or by offering them two-price contracts, under which each provider offers each patient a choice between receiving services without liability or receiving services with liability (at a higher price). It is assumed for argument's sake that patients know the costs and benefits of liability and are able and willing to negotiate in their own best interests.

impose liability by contract that they would derive from liability imposed by fiat. Contracting is rendered inefficient by problems associated with both collective goods and time inconsistency. Patients do not have optimal incentives to retain liability imposed to induce post-contractual care because, as previously explained, liability and the care it induces are collective goods. Each patient thus has an incentive to save money by waiving liability because he does not expect it to affect the quality of care he will receive. Individual negotiated contractual liability also provides inefficient incentives to waive liability needed to induce pre-contractual investments in care because medical providers cannot use contractual liability to signal their quality.¹²⁵ The reason for this is that, at the moment of contracting, any patient who believes that liability does signal quality has an incentive to request a waiver in order to obtain the high quality care without having to pay the premium associated with the right to receive compensation if injured. As a result of these two problems, patients required to contract over liability will contract out of liability even when they would be better off were liability imposed by the state. The right to contract, accordingly, will leave these patients worse off. For these patients, the decision to allow contracting does not simply expand the choices available to them; it alters their choices, substituting liability imposed individually by contract for the more-valuable collective, multi-period liability imposed by the state.

A. CLASSIC ECONOMIC CLAIM THAT CONTRACTUAL LIABILITY IS OPTIMAL

The claim that states should permit contracting over liability, even if they adopt optimal malpractice liability reform, turns on the proposition that states can only benefit patients by allowing them to contract out of liability. The claim is that all patients who would benefit from malpractice liability will retain it; the only patients who will waive liability are those who would not have derived a net benefit from liability imposed by the state. As before, this claim depends on whether patients have optimal incentives to contract over liability. Specifically, it depends to a considerable degree on whether patients derive the same benefit from liability imposed by contract as they do from malpractice liability.

Malpractice liability benefits patients by inducing providers to make two quite different investments in care: pre-contractual and post-contractual. Medical malpractice liability incentivizes medical providers to make cost-effective investments to reduce their probability of error. An important benefit of malpractice liability is that it encourages providers to consider all patients affected by their decisions, including future ones. Malpractice liability encourages providers to consider both current and future patients because many safety investments are durable, in that they improve the providers' ability to care for both existing and future patients. Durable investments include those in expertise, health care technology, and systems for reducing error. When well-designed, malpractice liability can induce providers to make investments in care taking into account the welfare of both current and future patients, because doing so reduces their expected liability over

¹²⁵ 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 obtain the full benefit of their decision to impose liability, because insurers bear most of these additional costs. See Geistfeld, *supra* note (making this observation in the context of contractual liability for product defects).

time. In turn, from the patient's perspective, a benefit of liability is that it induces his provider to make investment in care prior to contracting with the patient,¹²⁶ as well as afterwards.¹²⁷ Accordingly, to prove that contracting over liability is optimal, contractual liability proponents must show that each patient derives the same benefit from a decision to impose liability by contract as he would derive from the imposition of optimal liability by the state. Thus, patients who impose liability by contract obtain an equivalent increase in both pre-and post-contractual care as they would obtain if the state imposed liability by fiat.

Contractual liability proponents insist that patients seeking medical services derive the same benefit from liability imposed by contract as from liability imposed by the state, in that patients who impose liability by contract obtain the same increase in the expected quality of care – pre- and post-contract -- as they would obtain were liability imposed by fiat. This claim implicitly relies on economic models of contracting over product defects which find that consumers and produces have optimal incentives to contract over liability to regulate both pre- and post-contractual care.¹²⁸

Economic analyses of products liability find that producers and consumers have optimal incentives to contract into liability to regulate post-contractual care. Producers will offer to bear liability whenever the benefit of care exceeds the cost because doing so will attract consumers to them since, by definition, consumers value the higher quality produced by the warranty more than the additional amount they must pay the producer. Consumers for whom the benefit of this care exceeds the cost will pay the premium associated with liability, as they cannot reliably obtain the desired post-contractual care without it.¹²⁹

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 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 in Medicine*, 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 approximate 5,000 new and modified medical devices).

¹²⁶ Important investments in pre-contractual care include investments that affect a provider's ability to properly diagnose a patient and select the right treatment. Providers also can reduce error by investing (precontract) in systems and health care technology designed to reduce the risk that she will err delivering care.

¹²⁷ Important investments in post-contractual care include patient-specific investments – such as time spent in diagnosis and treatment selection – and more general care, including investment in expertise in matters because the quality of care delivered also depends on providers' investments post-contract in expertise, testing, improving administrative systems, supervision and care in performing procedures. Postcontractual 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.

¹²⁸ George Priest, A Theory of Consumer Product Warranty, 90 YALE L. J. 1297 (1981); Michael Spence, Consumer Misperceptions, Produce Failure, and Product Liability, 44 REV. ECON. STUD. 561 (1977); Grossman, supra note 18; see 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);.

¹²⁹ Priest, *supra* note 129; see 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);.

Economics analyses of product liability also find that consumers have optimal incentives to impose liability to regulate pre-contractual care. This claim depends on the proposition that producers can use liability to signal their pre-contractual investments in quality, as consumers obviously cannot use contracted for liability to *improve* a producer's pre-contractual care since, by definition, pre-contractual care is fixed (and unalterable) at the moment of contract. Specifically, when consumers cannot observe (or alter) product quality, they nevertheless may benefit from contracting into liability, if producers' offer to bear liability enables them to distinguish high quality producers from low quality ones. Liability provides this benefit if producers with high pre-contractual care use the offer to bear liability in order to signal their high quality, by offering to bear enough liability such that higher-risk, low-quality producers cannot mimic the same liability offer -- at the same price -- because doing so would subject them to ruinous expected liability costs. In this situation, the consumer's expected benefit of accepting liability is the expected benefit of purchasing a good with higher pre-contractual care rather than one with low precontractual care. This would appear to be the same as the benefit to the consumer of stateimposed liability that induces higher pre-contractual care.¹³⁰

Taken together, these analyses would appear to imply that patients and providers can be relied upon to contract optimally over liability. They do not. These analyses only apply to a form of contracting that we have already rejected as inefficient in the malpractice liability context: non-negotiable contracts executed at the point of service.¹³¹ Accordingly, to establish the efficiency of contracting with individual providers over malpractice liability we must restrict our attention to negotiable (or two-price) contractual liability. As it turns out, this form of contracting does not provide optimal benefits to impose liability to regulate either post-contractual care or pre-contractual care.

B. COLLECTIVE GOODS AND FREE-RIDER PROBLEM

Patients' decisions of whether to contract to retain state-imposed liability is not efficient because it is plagued by a "collective goods" problem. As previously explained, a central function of malpractice liability is to induce individual providers to make optimal investments in both patient-specific and systemic care, pre- and post-contract.¹³² Systemic

¹³⁰ The seminal papers on signaling quality through contractual liability (warranties) are Michael Spence, *Consumer Misperceptions, Produce Failure, and Product Liability*, 44 REV. ECON. STUD. 561 (1977); Grossman, *supra* note 18. See supra note 78(discussing information problems).

This article focuses on problems with this analysis that apply with special force to medical malpractice liability. Previous analyses of products liability have shown that the conditions required for efficient contracting over liability may not apply there either. First, most consumers do not have optimal incentives to contract into liability because they are insured against many losses associated with product failure (e.g., through medical insurance). Geistfeld, *supra* note 55 (customers who are insured against injuries will not have optimal incentives to contract into liability). Second, contracting is not efficient if consumers under-estimate the risk of liability. Spence, *supra*; Geistfeld, *supra* note 55. Finally, contracting over liability is not efficient if consumers can negotiate directly with producers over liability terms. Arlen & MacLeod, *supra* note 13, at 2000-2003; 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); see *infra* Section IV.

¹³¹ See supra Section II.C.

¹³² See *supra* note (discussing the importance of post-contractual investments).

investments by individual physicians include investment in the expertise needed to correctly diagnose a patient or select the right treatment, as well as post-contractual investments in health care technology, staffing and supervision. Systemic investments in care are important because they confer an expected benefit on all patients. A physician who develops expertise (to diagnose an illness or select the right treatment) applies that expertise consistently across all her patients. She will not knowingly deny some patients the right to that expertise because they have not paid for premium care. Similarly, a physician who develops a set of administrative systems or surgical procedures that reduces the risk of error will simply use those procedures on all patients.

Recognition that investments in medical quality often are collective goods reveals that malpractice liability itself is a collective good because it serves to induce investment in collective care that benefit all of the provider's patients, not just the one imposing the liability. Given this, each individual patient has excessive incentives to waive liability because he knows that his provider's investments in systemic care are determined by her total expected liability to all her patients. Patients contracting with providers who have many patients know that his individual choice to impose liability will not materially affect her expected liability and thus will have little effect on her overall investment in care.¹³⁴ Moreover, each patient who waives liability still expects to obtain the full benefit of investments in care induced by the liability choices of others since physicians tend to use their expertise on behalf of all patients and apply common protocols to all patients. Thus, waiver is a privately optimal choice even when each patient would be better off if the state imposed liability by fiat.

Each patient will seek to waive liability in this situation because he has a strong incentive to do so. Each patient expects his provider to charge him for the cost of providing care.¹³⁵ This amount should not vary significantly based on whether the patient

¹³³ Studies of the importance of systemic investments in care support the claim that patients' welfare depends significantly on investments in care that provide collective benefits. See *supra* Section I.A. The claim that the providers tend to standardize collective aspects of care - such as expertise, treatment assessments and systems -- even when patients have paid for care of differing quality is supported by evidence that the quality of care a patient receives from her physician depends not only on whether that patient himself has decided to insure through an MCO (which will place pressure on the physician to reduce costs) but also on whether a high portion of the physician's other patients are insured through an MCO. 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 Econ. Research, Working Paper No. 8065 (2001) (providing evidence that a patient's expected outcome from treatment by a particular physician depends on the portion of the patients enrolled in managed care in the local market, and not just that patient's choice of insurer).

¹³⁴ Contracting over liability also is inefficient even when care is not "lumpy" because the private benefit to a patient of imposing liability that induces an incremental investment in systemic care or expertise is less than the social benefit of this investment.

¹³⁵ As in the case of liability reform, see supra Section III, the free-riding problem is particularly great in the case of contractual liability that regulates large, discrete, collective investments that cannot be undertaken incrementally, such as equipment and substantial investments in expertise. In this situation, each patient knows that his medical provider will make the investment only if she faces liability for a substantial number of her patients. If she does face this liability, she will make the investment, regardless of what this patient does. If she does not, she will not make it, also regardless of what any one patient does. Given this, each

imposes liability or not since the cost of health care is determined primarily by substantial systemic investments that the provider will not alter in response to any individual patient's decision to impose liability. But in addition to this charge, each provider will charge each patient who imposes liability for the expected cost of actually having to pay liability – and the associated fees. She will not impose this fee needed to cover compensation payments on patients who do not impose liability -- even though they obtain the benefit of much of the care liability produces -- because she need not compensate them. Although this amount likely would not be enormous, each patient has an incentive to avoid this additional charge because the cost to them of the right to compensation exceeds their net benefit (once attorney's fees are paid). Thus, each patient will seek to waive liability in order to reduce his health care expenses because he can do so without substantially reducing expected outcomes. Of course, if each patient makes the same calculus, none of them will impose liability even though all of them would be better off if they could impose liability collectively.¹³⁶ Accordingly, states that allow contracting in these circumstances will reduce the welfare of patients who would have benefited from state-imposed liability.

Example

We can see this in our example. Assume that the state imposed optimal reforms, which would induce each physician to adopt optimal care costing \$3,000 if all patients retain it. The question is, will the first patient offered the right to contract seek a waiver?

Liability Waiver	Hospital's per patient Cost of Care	Patient's Exp. Harm	Net Expected Compensation	Patient's Exp Costs
Yes	30	10	0	40
No	30	10	10-3 = 7	40 + (1/100)(1,000 - 1,000 + 300) = 43

<u>Per Patient Costs/Benefits of Liability Waiver</u>

In this situation, the patient knows that his individual decision to waive will not reduce the physician's incentive to invest in systemic care because the physician would still face liability to the other 99 patients. Thus, the patient can waive without any reduction in care.¹³⁷ Of course, he also knows that the physician will charge the patient for his share of the \$3,000 investment whether the patient waives or not. Nevertheless, the patient has an incentive to waive because if he waives, the physician will not have to charge the patient an extra \$10 for the cost of expected liability payments. The patient would like to avoid this fee because the \$10 payment to the physician only generates an expected benefit of \$7 since he must pay his lawyer 30% of any recovery: \$7 = (1/100)(1,000-300). So the patient will waive liability in order to lower costs without suffering a significant (here any)

patient will rationally waive liability because he knows that his decision will have no effect on the provider's expected investment in discrete care.

¹³⁶ See Arlen & MacLeod, *supra* note 2, 2003-04; Arlen, *supra* note, at 258-59. It is important to note that patients recognizing this will not decide to simply impose liability in order to get better care because they understand that other patients are likely to free ride and their unitary choice will not induce the desired care.

¹³⁷ See *supra* note 133.

reduction in quality. Of course, if each patient makes this decision, they all will waive and then the physician will not invest \$3,000 in care – to the detriment of every patient.¹³⁸

Contractual liability thus is an inefficient mechanism for regulating providers' investments in collective care because it forces patients to contract individually for a right that provides a collective benefit. Patients who would benefit from coordinating with each other to impose liability nevertheless will select not to impose it when negotiating over liability 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, negotiated individual contracting over liability is not efficient.

C. SIGNALING PRE-CONTRACTUAL QUALITY

Collective goods problems are not the only problems plaguing individual negotiated contracting over liability. This form of contracting also is inefficient because it provides patients with suboptimal incentives to impose liability to regulate providers' pre-contractual investments in care. As previously discussed, contractual liability proponents assume that patients have optimal incentives to contract into liability when pre-contractual care matters, because patients believe that contracting into liability gives them access to providers who made greater investments in pre-contractual care. This conclusion rests on the premise that providers who invested more in care pre-contract can use liability to signal their higher quality, because only higher quality providers will offer to accept liability.¹³⁹

The conclusion that high quality producers can use liability to signal quality does not apply to negotiated contracting over liability, however, because this form of contracting does not lead to a situation where patients correctly believe that only high quality providers offer to bear liability.¹⁴⁰ When patients cannot determine individual provider quality, providers who made superior investments in pre-contractual care can reap a financial reward from these investments only if they can signal their quality. It might appear that high quality providers signal their superior quality by offering to bear liability for injuries caused by error, since low quality providers cannot offer liability terms (at least not at the same price as high quality providers for liability) without incurring costs that exceed the revenues associated with the liability term. This is not the case when patients can negotiate

¹³⁸ It is assumed that patients are identical and so all get the same terms.

¹³⁹ Supra Section IV.A. The classic papers on 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, Produce Failure, and Product Liability*, 44 REV. ECON. STUD. 561 (1977); Grossman, *supra* note. Signaling not only helps consumers distinguish high-quality providers from lowquality ones, it can also 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 to attract consumers by offering liability contracts. When contracting promotes signaling, it can produce the same deterrence benefits as mandatory liability.

¹⁴⁰ Arlen, *supra* note 14. Negotiation also undermines the use of contractual liability to regulate the moral hazard problem, see Arlen & MacLeod, *supra* note 14; Wickelgren, *supra* note 14; see also Drew Fudenberg & Jean Tirole, *Moral Hazard and Renegotiation in Agency Contracts*, 58 ECONOMETRICA 1279 (1990) (finding that ability to renegotiate contract reduces agent's incentives to take care).

with providers who offer liability terms, however.¹⁴¹

1. Time-Inconsistency Problems

High quality providers cannot use liability contracts negotiated with patients to signal quality even when patients prefer higher quality care, because each patient's *ex ante* preference for higher quality care does not translate into an incentive to impose liability at the moment of contracting. Given this, low quality producers operating in markets with negotiated liability can mimic the malpractice liability contracts of high quality producers without suffering any costs. Indeed, it would be quite profitable to do so.¹⁴²

To see this, it is useful to consider whether conditions exist to support an equilibrium in which only high quality providers volunteer to bear liability, assuming that all patients believe the signal. It is apparent that this equilibrium cannot exist. We can see this by considering the welfare-maximizing choice of a rational patient who learns that a particular provider is offering to bear liability (for a good price). In equilibrium, this patient would believe that this offer signals high quality.¹⁴³ Given this, the patient would select that provider.

But now we come to the important question: having selected the provider based on the liability contract, will the patient also seek to in fact impose liability? The answer is: he will not. Once he has selected the provider, the patient has an incentive to lower the cost of obtaining care from that provider by offering to waive liability in return for a lower price. The patient should negotiate to waive liability because he obtains no benefit from the decision to actually impose liability on a provider who has offered to bear it because the patient's decision to impose liability would not alter the expected quality of the good. Liability imposed by contract cannot alter the provider's investment in *pre*-contractual care because that was determined long ago. Nor does the *patient's* decision to accept liability affect the expected quality of the product. The patient's belief about product quality depends on actions taken by the *provider* to signal quality – this being the provider's original offer. Thus the patient's own counter-offer should not alter his beliefs about provider quality.

Given this, once the patient has received the signal, the patient's decision of whether to accept the liability offer or seek a waiver does not function to regulate quality; it only operates to insure the patient against any potential injuries. But we have already seen that patients do not derive a net benefit from the compensatory (or insurance) function of

¹⁴¹ The conclusion that patients will not optimally contract into liability to regulate pre-contractual care reveals that providers will not have optimal incentives to invest in safety measures which are cost-effective due to their impact on both current and future patients because rational providers will understand that future patients will not subject them to liability. As to future patients, these investments are pre-contractual. If liability does not signal quality, future patients derive no benefit from imposing liability.

¹⁴² 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.

¹⁴³ This article assumes that liability is needed because patients cannot observe individual provider quality. This assumption is consistent with the empirical literature. See *supra* Section I. Accordingly, the issue addressed is whether contractual liability is as effective at regulating care as malpractice liability could be. In the case of pre-contractual investments in care, this depends on whether medical providers can use contractual liability to signal quality.

liability because the amount the provider must charge the patient to compensate her for her expected liability costs exceeds the expected value to the patient of the compensation received.¹⁴⁴ Accordingly, a rational and well-informed patient who has received a liability offer that he believes is a valid signal of provider quality will immediately suggest to the medical provider than he will accept a liability waiver, for a reduced price, because it is in their mutual best interests.¹⁴⁵ The mutual incentives to high quality providers and patients to negotiate liability waivers results in a situation where high quality providers cannot use the initial offer to bear liability offers of high quality providers when they anticipate that any patient who contracts with them will subsequently seek a waiver.¹⁴⁶ Collective action problems and competition between providers imply that individual high-quality providers will accept liability waivers even though collectively they would be better off if they could commit not to do so.

Example

The conclusion that providers negotiating with patients cannot use liability to signal quality is easily illustrated using a variation on our numerical example. Consider two physicians negotiating over liability with a risk neutral patient. Assume that one physician is low quality (with a 1 in 10 risk of error) and the other is high quality, having invested \$30

¹⁴⁴ See supra Section IV; accord Richard Epstein, *Products Liability as an Insurance Market*, 14 J. LEGAL STUD. 645 (1985) (arguing that products liability does not confer a net benefit when viewed purely as a system for providing compensation, in effect insurance).

¹⁴⁵ The conventional analysis of product warranties produces a Perfect Bayesian Separating Equilibrium by employing a model in which consumers value warranties both for the signal they provide and for the insurance against the risk of product defects. As a result, consumers always accept warranties even if they do not value the signal. This deters low quality producers from offering warranties. Grossman, *supra* note. Of course, that model assumes that warranty enforcement is costless. Consumers can seek payments at zero cost and producers make them automatically and costlessly. Whatever the merits of this assumption in the product defect context, it would not apply to contracting over liability for physical injuries. Providers will not simply accept every patient claim for recovery; given this, patients will need lawyers. So long as patients need lawyers to collect, liability must serve a primarily deterrent function. It is not a cost-effective mechanism for insuring patients (and consumers) against losses. *E.g.*, Epstein, supra note (products liability is an inefficient mechanism for providing compensation to consumers injured by product defects).

Arlen, supra note 13. Another way to see this is to consider a rational patient presented with a twoprice liability contract in which the provider offers the patient the choice of whether to impose liability, but for a price. In this situation, the patient's expectations of quality would be determined by the structure of the two-price contract: specifically, by the premium charged for the right to impose liability. If the signal is credible, a patient could select the provider with a low premium for liability confident that this signals that the provider is high quality. The problem is, this signal is not credible, because low-quality providers know that any patient who selects a provider believing that the price charged signals quality, now has an incentive to select the "no liability" clause. The reason for this is that the signal of quality comes from the structure of the contract, and not the patient's actual choice. The patient's choice only determines whether he uses liability to insure against future losses. Each patient thus will select the no-liability option because liability is not an excessively expensive mechanism for insuring patients against the risk of injury (especially given that most patients already are insured against most medical costs associated with error). Of course, the recognition that patients will select the "no liability" clause implies that high-quality providers cannot use two-price contracts to signal quality because low-quality providers can offer identical contracts confident that patients will select the "no liability" option. 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.

to reduce her expected risk of error to 1 in $100.^{147}$ Assume that error would cause a \$1,000 loss to one patient. The patient would prefer the higher quality provider and would be willing to pay more to get her. Specifically, she would be willing to pay the litigation costs associated with imposing liability if this would ensure higher quality care (since the benefit of care (100-10=90) exceeds the cost (30 + 3 = 33)).

Patient	Believes	Signal

Contract Clause	Price	Patient's Total Expected Costs
No Liability	30	30 + (1/100) (1,000) = 40
Liability	40	40 + (1/100) (1,000 - 1000 + 300) = 43

Notwithstanding the patient's preference for higher quality care, the high quality providers cannot use liability to signal quality because the patient's willingness to use stateimposed liability to induce higher quality does not translate into a willingness to impose contracted for liability if the patient has an opportunity to negotiate for an alternative. The reason for this is that the patient who believes that the contract offered signals that the provider is high quality, also believes he could improve his situation by offering to waive liability, since this will not alter quality, but will avoid litigation costs. Specifically, the patient here can reap an expected savings of \$3 by waiving liability in return for a \$10 price reduction. The provider has an incentive to accept this offer because it leaves him no worse off than he would be charging \$10 in return for bearing expected liability costs of \$10. The patient's ex post incentives to waive liability undermine the high quality provider's ability to 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 precontractual care.¹⁴⁸

Accordingly, when patients and providers negotiate over liability, providers will not have optimal incentives to offer to bear liability and patients will not have optimal incentives to contract into it because liability will not provide them with a credible signal of quality.¹⁴⁹

2. Signaling and Collective Goods

Beyond this, it should be observed that negotiation also can undermine signaling if it leads providers to offer different contracts to different patients. Providers who offer different contracts to difference patients cannot easily signal quality when care is collective because a provider's incentive to invest in care depends not simply on whether a given

¹⁴⁷ 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.

¹⁴⁸ For a discussion of signaling through one price liability when patients can negotiate with providers at the moment of contracting see Arlen, *supra* note 13.

¹⁴⁹ But cf. David U. Himmelstein, et. al., *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).

individual patient imposes liability, but instead on the liability contracts of other patients. This creates a problem for signaling through liability because a patient (who knows his provider's cost functions) cannot estimate his provider quality based on information available to the patient: specifically, the patient's own decision to impose liability. Instead, the patient can only estimate the provider's expected quality if he knows the terms of the provider's contracts with other patients and how many patients the provider expects to serve. Accordingly, even a patient who knows his own benefit function and the cost functions of all providers will not know enough to determine the expected increase in quality associated with an offer to bear liability. To make this calculation the patient also would need to calculate how much liability the provider is likely to face from her other patients. This depends on whether they have incentives to seek waivers, which they do because of time-inconsistency problems.

D. SUMMARY

The preceding analysis reveals that patients and providers do not have optimal incentives to contract over liability when contracting occurs through contracts negotiated by patients and providers at the point of service. This implies that legislatures cannot effectively reform malpractice liability by asking providers and patients to select the liability terms that they prefer. It also implies that a state that has adopted optimal malpractice liability reform would make many (if not most) patients worse off if it allowed medical providers to contract around these terms. Moreover, this conclusion holds even when patients accurately assess the costs and benefits of liability.

The central insight underlying this conclusion is that this negotiated contracting over liability does not simply expand the choices offered to patients; instead, it alters them. Moreover, it alters their choices in a way that harms many of them. Negotiated contracting over liability undermines patients' ability to use liability optimally to regulate providers' care because patients want to regulate providers' care decisions both pre- and post-contract. They also want to reach care decisions which confer collective benefits on patients. Malpractice liability is a potentially effective mechanism for regulating such investments because it is a collective, multi-period, multi-provider form of liability. 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-By contrast, negotiated contractual liability is not an effective contracting care). mechanism for regulating either pre-contractual care or collective care. The move to individual contracting undermines patients' ability to use liability to regulate collective goods. The move to negotiated contracting undermines their ability to regulate pre-The individual and negotiated aspects of this form of contracting contractual care. combine to reduce the benefit to patients of liability below the benefit they would obtain from liability imposed by fiat. As a result, the introduction of this form of contracting could harm patients by inducing them to contract out of liability even when they would be better off if the state imposed malpractice liability.

CONTRACTING OVER MALPRACTICE LIABILITY

V. CONTRACTING WITH COMMITMENT THROUGH MCOS

The preceding analysis reveals that individual negotiated contracting is not an efficient mechanism for regulating medical care because both individual choice and negotiation render contracting suboptimal. This presents the question of whether contracting would be optimal if patients made collective choices and were precluded from negotiating over liability at the point of service. One proposal that appears to satisfy these criteria is the proposal to reform liability to shift all (default) liability for medical provider error to the MCOs, and then permit MCOs to contract over liability with patients (or their employers).¹⁵⁰ MCO contractual liability would reduce, albeit not eliminate, collective goods and time-inconsistency problems if MCOs offered subscribers insurance plans composed of providers who all are bound to accept a uniform, non-negotiable, liability rule in all patient contracts.¹⁵¹ Presumably, subscribers would pay more to contract into networks where all providers accept liability but also would receive higher quality care, as compared to those contracting into "no liability networks."

¹⁵⁰ HAVIGHURST, HEALTH CARE CHOICES, *supra* note; see Danzon, *supra* note 37, at 1382 (discussing the benefit of contracting over liability through MCOs).

Other similar entities capable of influencing care and coordinating contracting include hospitals and large physician provider groups. This Article focuses on MCOs in discussing contracting through a large entity because patients are in a better position to enter into contracts that coordinate care, financing and incentives (sanctions) across most of the providers they are likely to deal with through MCOs than hospitals. See, *a.g.*, HAVIGHURST, HEALTH CARE CHOICES, *supra* note (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; see Danzon, *supra* note 37, at 1382 (contracting through MCOs remedies many of the problems arising from waiver at point of service); cf. Sage, *supra* note, at 163 (MCO channeling liability and quality control through MCOs is superior to channeling it through hospitals); Arlen & MacLeod, *supra* note 13, at 1995-96 n. 221 (same); ; Sherry Glied, *Managed Care*, in 1A HANDBOOK OF HEALTH ECONOMICS, 725-26 (Anthony J. Culver & Joseph P. Newhouse eds., 2000) (discussing MCOs' superior ability to generate good information on medical quality which they could use to benefit consumers). But see Abraham & Weiler, *supra* note, at 393-94 (arguing for contractual enterprise liability also apply to contractual liability implemented through hospitals, physician provider groups or individual physicians.

¹⁵¹ Contracting between patients and MCOs through non-negotiable contracts is superior to standard form contracting between patients and individual providers at the point of service for the reasons given in Section II. First, patients contracting annually with MCOs are less likely to agree to inefficient waivers as a result of duress because patients contract with MCOs during the open enrollment period, which usually occurs before a patient needs medical services. Patients also have time to deliberate during open enrollment and can consult with others facing the same choices. MCO contracting also is more likely to address the time-inconsistency problem because patients who obtain insurance from an employer cannot directly negotiate with the MCO for terms other than those offered, whereas they can seek a quiet liability waiver from an individual physician. Even now, hospitals and physicians do negotiate individual arrangements with patients. Finally, MCO-contractual liability is more effective because it allows patients to contract over cost and quality with the primary entity that determines both the cost and quality of their health care, the insurer. Contracting through MCOs solves an important problem plaguing contracting through physicians, which is that 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. While this problem is less severe now that patients bear an increasing portion of their own serious medical costs, it nevertheless exists. MCO contracting eliminates this problem by channeling contracting through the entity from which the patient purchases insurance, as this entity can offer patients an incentive to select the no-liability contract by charging a lower premium for plans that involve only no-liability providers. See Danzon, supra note 4.

MCO contractual liability appears to be unambiguously superior to contracting through individual providers. First, it contracting over liability between patients and insurers is superior to contracting between patients and physicians because insurers can offer superior incentives to accept liability waivers since they exercise authority over both the financing of their medical care and its quality. MCOs, for example, affect quality through choosing which providers to include in their networks, using review authority, and providing financial incentives to physicians and hospitals to favor either treatment cost or quality.¹⁵² Second, patients contracting annually with MCOs are less likely to agree to inefficient waivers as a result of duress because patients contract with MCOs during the open enrollment period, which generally occurs long before a patient needs medical services. Moreover, during open enrollment, each patient is presented with a summary of the available health plans, and has the opportunity to compare plans over several weeks, in consultation with other employees facing the same choices.¹⁵³ Finally, MCO contracting also is superior to point-of-service contracting because patients can make more effective cost-quality tradeoffs when contracting with the entity that determines both the cost and quality of care, than they can when contracting with a provider after they have shifted the financial cost of care onto their insurer. MCO-patient contracting better enables patients to obtain the full financial benefit of contracting for cost-reducing liability terms through lower premiums charged for insurance.¹⁵⁴ But the question is, are these advantages sufficient to ensure that MCO contractual liability induces optimal contracting over liability.

This Section examines whether patients have optimal incentives to contract over the terms of liability when implemented through MCO contracting with patients through non-negotiable contracts.¹⁵⁵ In order to examine this form of contracting in a favorable light, it is assumed that each patient has a choice of at least two health plans¹⁵⁶ – with one provider network agreeing to be bound by optimal liability to all their patients and the other network rejecting liability for all patients.¹⁵⁷ 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

¹⁵² Arlen & MacLeod, supra note 13 (providing a detailed analysis of the benefits of MCO liability); see Havighurst, supra note 4; Danzon, supra note 4.

¹⁵³ *E.g.*, Danzon, *supra* note 37, at 11382 (contracting through MCOs would enable patients to make informed choices before they need care). Cf. *supra* note 75 (critiquing that argument that MCO contracting may be better informed than individual contracting because patients may get some benefit from the intermediating role of employers).

¹⁵⁴ E.g., Danzon, *supra* note 4.

¹⁵⁵ This form of contractual liability would 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.

¹⁵⁶ But cf. Joseph Newhouse, *Reimbursing Health Plans and Health Providers: Efficiency in Production Versus Selection*, 34 J. ECON. LIT. 1236, 1240 (1996) (48% of employees offered insurance are only offered one health plan).

¹⁵⁷ This form of MCO liability differs from that preferred by proponents of MCO contracting who advocate unfettered contracting between MCOs and patients over liability. This section examines collective contracting with commitment because unfettered MCO contracting also would be 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).

one that does not.158

This Section shows that contractual MCO liability reduces some of the problems plaguing individual negotiable contractual liability; but it does not remedy all of them. Moreover, this form of contractual liability introduces a new problem: adverse selection. As a result of adverse selection, this form of contracting is inefficient because it violates the optimality requirement that patients are able to obtain liability so long as they are willing to pay the costs associated with its imposition. MCO contracting over reformed liability is plagued by adverse selection because a central goal (and effect) of malpractice liability is to induce hospitals to invest in better systemic care. These investments, however, do not benefit all patients equally. Instead, they confer a disproportionately large benefit on patients who expect to need hospital care during the course of the contract. Accordingly, all else equal, MCOs can expect that "liability" plans will attract a disproportionate number of patients who expect to need serious (expensive) hospital care. Recognizing this, MCOs will charge more than the efficient premium for the liability plan because they will price the liability plan to reflect the higher expected health care costs of the type of patients who are most likely to value liability. This premium surcharge will push many patients who value state-imposed liability to contract into the "no-liability" plan because they are not willing to pay both for liability and for the expected medical costs of sicker-than-average patients. Contracting operates to the detriment of these patients who are pushed by adverse selection to elect a no-liability plan when they would have preferred the liability plan if imposed by fiat. Beyond this, contracting may drive even unhealthy patients into the "no liability" plan if adverse selection drives prices up beyond their ability to pay. In this case, these patients will obtain lower quality care than would be available to them through malpractice liability.

A. ADVANTAGES OF AND LIMITS OF MCO CONTRACTING WITH COMMITMENT

MCO contractual liability would remedy some problems of negotiated contracting if each MCO created uniform insurance plans in which every provider in the plan network was subject to a uniform liability rule (and uniform standard of care) and any patient seeking care from that provider had to accept those liability terms, without any ability to alter liability thereafter. Contracting through standard form contracts would reduce the collective goods problem so long as each provider offered the same liability terms to all her

¹⁵⁸ This Article makes this assumption solely to evaluate contractual liability in the most favorable light. In fact, this assumption is unlikely to hold.

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 72, 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 when employees have good information on costs and poor information on quality, as is often the case. Arlen & MacLeod, supra note 9, 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 mimic the behavior of most workers and place a lot of weight on price considerations and pay less attention to quality measures); Dranove & Satterwaite, *supra* note 78.

patients. In this case, patients could no longer free-ride on the liability choices of others when each provider has the same liability terms for every patient because the only way the patient can obtain the benefit of the incentives created by expected liability imposed by other patients is to pay to impose it himself.¹⁵⁹ In addition, contracting through standard form, uniform, ¹⁶⁰ non-negotiable contracts would enable providers to use liability to signal quality because low quality providers could not offer to bear liability in the expectation that patients would subsequently negotiate for a waiver. Finally, MCO contracting has the advantage of facilitating networks of providers offering similar liability terms. Networks are important because a provider's personal liability choice has external effects on other providers serving the same patients for similar or related conditions. Thus MCO contracting would facilitate the formation of "all liability" and "no liability" networks.¹⁶¹

Although MCO contractual liability does reduce some of the problems plaguing individual negotiable contractual liability, it does not remedy all of them.¹⁶² It does not eliminate the concern that contracting will lead to excessive variation in the standard of care because patients and MCO contracting over care have excessive incentives to adopt care standards that suit their individual needs, without considering the external costs on others of their decision to contract for a different standard of care than that adopted by others. Employers with local work forces may face strong incentives to select insurers whose contracts are tailored to their needs, which will place market pressure on national MCOs to take more account of local needs than may be optimal.

Moreover, MCO contracting does not remedy the collective goods problem unless each provider contracting over liability with one MCO is required to accept the same liability terms in its contracts with all other providers. Absent this condition, MCO contracting will be plagued by the same collective action problems as individual provider

¹⁵⁹ 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 liability. If the incentives provided by liability are symmetric, this should result in patients making relatively efficient choices, at least with respect to the collective goods issue.

¹⁶⁰ Of course, to enable patients to derive a good estimate of quality, each provider would have to offer the same contract to all of her patients.

¹⁶¹ Thus, MCO contracting with commitment is superior to allowing individual providers to contract with patients at the point of service through standard form, non-negotiable adhesion contracts. See supra Section II.B & C.

¹⁶² Obviously, another limitation is the MCO contractual liability will not reach the millions of patients who are uninsured. Although most privately-insured patients are insured through an entity that operates as an MCO, more than 15% of the population is not insured. Health Care and the States: The Federalist Prescription, 27-28 THE ECONOMIST (January 13, 2007) (approximately 16 percent of the overall population currently is uninsured; more than 15% of the populations of Florida, Texas, New Mexico, California, Georgia, Oregon, Nevada, Utah, Colorado, Oklahoma, Missouri, Arkansas, Louisiana, Mississippi, South Carolina, North Carolina and West Virginia are uninsured). 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. See generally SOCIAL SECURITY ADMINISTRATION, ANNUAL STATISTICAL SUPPLEMENT TO THE SOCIAL SECURITY BULLETIN, 2005, 5 (Feb. 2006); 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). Furrow, supra. Most of these patients must accept whatever contract terms the federal government imposes.

contracting since MCOs (and thus patients) contracting over liability with providers will not consider the effect of their decisions on the patients of other insurers. Moreover, they cannot be confident of deriving the full benefit of their liability choices without ascertaining the liability choices of others. Finally, they otherwise would have incentives to free-ride on the liability choices of patients of other MCOs. This implies that once a hospital selects a liability term with one MCO it must insist on the same term in all subsequent contracts. This substantially reduces the "heterogeneity" benefits of contracting. It also raises the specter of contracting being distorted by difficulties associated with MCOs converging through individual contracting on the form of liability that benefits most of their patients.¹⁶³

B. PROBLEMS INTRODUCED BY MCO CONTRACTING: ADVERSE SELECTION

Beyond this, MCO contracting with commitment would introduce a new source of inefficiency, adverse selection, which will induce the average patient to waive liability even if he would have benefited from liability imposed through the tort system. Contracting over liability is not optimal unless patients can obtain liability by paying no more than the cost to the provider of the investments in quality induced by liability and the expected costs of compensation. MCO contractual liability violates this condition. MCOs cannot simply charge patients in premium plans an amount equal to the cost of the safety investments induced by liability (plus expected compensation) because MCOs know that less healthy people are more willing to pay more for the extra quality produced by "liability plans" since the quality investments produced tend to be most relevant for people seeking hospital care or other serious care. Given this, the premium MCOs charge for the "liability" plan will equal the costs associated with liability *plus* the added costs associated with providing health care for patients that are sicker than the average patient. This premium implies, at a minimum, that contracting over liability through MCOs is not optimal because a patient who wants to obtain liability cannot do so without paying a surcharge based on the assumption that he is less healthy than average. This surcharge burdens the imposition of liability and will lead to less contracting into liability than is optimal.

To see why MCOs will distort pricing in this way, we need to first discuss the structure of health insurance pricing and the strong pressures that MCOs face to use plan design to separate ill patients from healthy ones.

1. Structure of Health Insurance Pricing and Benefits of Pooling

MCOs selling a given health plan to subscribers generally do not – indeed often cannot – charge patients different amounts to purchase the plan, even when they have information to suggest the individual may incur substantial health care expenditures.¹⁶⁴ This pricing structure places significant pressures on MCOs because patients vary enormously in their demand for health care: Ninety percent of the population spends

¹⁶³ For an insightful discussion of inefficiencies that can arise when standardization is needed, for example because of network effects, see Kahan & Klausner, supra note ; Kornhauser, supra note.

¹⁶⁴ Plans do charge different amount to insure an individual or a family, but do not adjust the costs of the family plan to account for the number of children. Joseph Newhouse, *Reimbursing Health Plans and Health Providers: Efficiency in Production Versus Selection*, 34 J. ECON. LIT. 1236, 1253, 1258 (1996) (discussing both pricing structure and evidence that MCOs do attempt to select for healthier patients).

relatively little on health care, but a mere ten percent of the population accounts for threequarters of all medical spending.¹⁶⁵ The top 1 percent of health care users require approximately \$50,000 each year in care (in 1987 dollars) and account for 30 percent of all medical spending.¹⁶⁶ It also implies that the healthy patients in any given plan subsidize the health care expenditures of the unhealthy ones.

State and federal regulations limit MCOs' ability to price discriminate within a plan because health insurance cannot guarantee coverage for ill patients unless ill patients are pooled in a plan with large numbers of healthy patients. The reason for this is simple. Most patients with serious illnesses cannot afford to purchase insurance if insurers can charge them for the expected cost of covering their medical care for the year. Accordingly, health insurance coverage cannot be extended to most ill patients unless these patients are pooled in with a large number of healthy patients, who each bear a portion of the costs of care associated with those less fortunate.

This pooling of healthy and ill patients harms healthy patients in the short-run, but potentially benefits them in the long-run because this system ensures that they too will be able to obtain insurance once they get ill. Healthy patients value this because almost all of the patients who are healthy today will eventually become seriously ill and need more care than they can afford. Healthy patients thus benefit over the long-run from pooling because it offers them the promise that they too will have access to affordable insurance, when they become seriously ill in future years. This long-run cross subsidization thus benefits healthy patients as well as will ones by operating as an effective substitute for insurance against future risks.¹⁶⁷

2. Price Distorting Effects of Adverse Selection

Although pooling benefits both ill patients in the short-run and healthy ones in the long run, MCOs have strong incentives to break out of the pooling equilibrium because MCOs required to charge a fixed fee to each patient lose money on patients who are unhealthy. MCOs thus stand to benefit if they can encourage enrollment by healthy subscribers and discourage enrollment by those with chronic illnesses. Moreover, while healthy patients benefit in the long-run if all patients must pool, they have short-run

¹⁶⁵ David M. Cutler & Richard J. Zeckhauser, *The Anatomy of Health Insurance*, 563, 571, in 1A HANDBOOK OF HEALTH ECONOMICS 708-10 (Anthony J. Culver & Joseph P. Newhouse eds., 2000).

¹⁶⁶ Id. at 571-572.

¹⁶⁷ In a perfect world, complete insurance markets would allow healthy patients today to purchase health insurance to cover them against the risk of becoming high-priced sick patients many years in the future, spreading out their expected future costs across many years. Insurance markets are not complete, however. Patients contract annually for insurance that covers their health care costs only for one year. Pooling provides a potential second-best solution to address patients' desire to shift the cost of future illnesses forward in time, into the years where patients are healthy and able to pay for care. Insurance plans can achieve a form of insurance across time when the plans pool healthy and ill patients together, are reaffirmed each year, and guarantee that a patient retains coverage (at the standard price) should he become ill because the long-run effect of these pools is to require healthy patients to pay more when healthy in return for the ability to be subsidized in the future when they become ill. This long-run cross subsidization thus benefits healthy patients as well as will ones by operating as an effective substitute for insurance against future risks. 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).

incentives to attempt to obtain low cost insurance while healthy.

Although MCOs cannot directly discriminate against ill patients, they are able to use health plan design to separate healthy from ill subscribers. MCOs are able to attract healthy patients by designing low cost health plans with attributes which are acceptable to healthy subscribers (albeit less good than what they would prefer), but which are unacceptable to those who anticipate needing serious medical care. Examples of such plans are low-price plans that offer good preventative care but reduce the quantity or quality of care of serious medical care (e.g., in a hospital). Healthy subscribers will disproportionately seek out these plans because they do not expect the limitations on serious care to harm them as they only anticipate needing preventative care. Unhealthy subscribers cannot accept these plans because they know they will need the serious care.¹⁶⁸

The essential consequence of adverse selection is that healthy patients are able to obtain the lower priced health care, but only by accepting insurance which is of lower quality than they would prefer (and be willing to pay for). Healthy patients must accept insurance which offers lower quality care, because the only way they can get the benefit of lower cost insurance is to accept insurance that unhealthy patients would not accept it (even though it is cheaper). This insurance must impose sufficient quantity or quality burdens as to drive away someone with serious health care needs (and an ability to pay for more insurance). The plan can do so only by imposing a substantial burden on those who want insurance to obtain significant health care.

The related consequence of selection pressures is that those not-seriously ill patients who do obtain higher quality insurance pay a premium that significantly exceeds the cost to the insurer of providing them the additional quality. This is because they pay a premium which reflects the insurer's expectation that patients who prefer the better plan have higher than average health care needs. This "selection-based" penalty imposed on those who want higher quality plans is substantial. For example, one study of family health policies found a patient presented with a low quality plan at the 10th percentile of the premium distribution would have to pay three times that premium to obtain a health plan which provides only 40% more health care (as measured by spending). This tripling of the premium reflects the fact that the better plan attracts a disproportionate percentage of patients who need medical care.¹⁶⁹ This penalty discourages healthier patients who face financial constraints from obtaining the quality of care they prefer.

MCOs do not currently have unfettered freedom to use plan design to induce separation, however. Adverse selection concerns are sufficiently serious that governments have long intervened in health care markets to attempt to ensure that patients can obtain the quality they want – for example, by imposing certain minimum quality constraints on

¹⁶⁸ Newhouse, *supra* note 169, at 1253, 1258 (discussing both pricing structure and evidence that MCOs do attempt to select for healthier patients).

¹⁶⁹ Newhouse, *supra* note 169, at 1253-54. Similarly, the Federal Employees Health Benefit Plan appears to exhibit a pricing structure distorted by selection effect. This plan offered two nonintegrated plans with a free choice of physician, known as high- and low-option. The plans differed only in the amount of cost-sharing, not in the coverage provided. Although the actuarial difference in the two plans was only 10%, employees could not obtain the superior plan subject to only a 10% surcharge. The price charged for the high-option plan was double that charged for the low-option plan, as a result of the expectation that this plan would attract people with greater health care needs. *Id.*, at 1255.

the coverage that plans can offer.¹⁷⁰ These interventions mute selection, but also leave MCOs with an unfulfilled demand to induce separation. This unfulfilled demand for mechanisms that promote selection has implications for MCO contracting over liability.

3. Implications of Adverse Selection for Contracting Over Liability

MCO contracting over liability would exacerbate existing adverse selections problems; these problems in turn imply that patients will not contract optimally over liability because patients wanting to impose liability by contract would have to pay more (per patient) than they would have to pay if the state imposed liability by fiat.

MCO contracting over liability raises selection problems because the primary effect of a well-designed liability system is to induce investments in expertise and systemic care – especially by medical entities (such as hospitals). Accordingly, liability is most valuable to patients who expect to need medical care of the sort particularly affected by these investments: This disproportionately includes patients needing hospital care. Healthy patients who only expect to need preventative care can expect to receive little (if any) benefit from liability – except in the unlikely event that they in fact do need serious care.

Consequently, MCOs could employ contracting over liability to improve its ability to separate healthy and unhealthy patients into different plans. Patients who anticipate being healthy might want liability, but could live without it in return for sufficiently large discount. Patients who need serious care would find the "no liability" plans unattractive and would be willing to pay more to obtain the greater safety induced by liability. Accordingly, MCOs contracting over liability would not incorporate "liability" provisions into each and every plan. Instead, it is likely that they would bundle "no liability" provisions with other plan design features associated with the low-cost/lower quality plans designed for healthier people, because this would deter unhealthy patients from selecting these plans, without imposing an enormous burden on healthy ones. "Liability" clauses would be offered only as part of the high quantity/higher quality health plans which disproportionately attract unhealthy patients. The extra premium charged for these liability plans would have to far exceed the cost of the additional safety induced by the imposition of liability, because the plan would be priced to reflect the fact that it attracts a disproportionate number of patients with serious health care costs.¹⁷¹

This implies that MCO contractual liability will not lead to optimal contracting over liability between patients and providers. Patients seeking to contract into liability would face excessive costs relative to those imposed if the state imposed liability by fiat because patients could not obtain a liability insurance contract without paying for an insurance plan priced on the assumption that its subscribers have a higher than average demand for health care. As a consequence, MCO contractual liability will induce many patients of average health or wealth to contract out of liability patients -- even when they would be better off were the state to impose liability -- because they can only obtain liability by contract if they pay an inefficient "selection penalty."¹⁷² Indeed, selection effects can lead even relatively ill

¹⁷⁰ Russell Korobkin, The Efficiency of Managed Care "Patient Protection" Laws: Incomplete Contracts, Bounded Rationality, and Market Failure, 85 CORNELL L. REV. 1, 10 (1999).

¹⁷¹ See Cutler & Zeckhauser, *supra* note 165, at 607 ("Generally, the sick are drawn to more generous plans than are the healthy.").

¹⁷² For a helpful discussion of the adverse selection problem as it affects health insurance see Cutler & Zeckhauser, *supra* note 165.

patients to select "no liability" plans, if selection pressures drive so many healthy patients from the higher cost plans that MCOs must charge enormous premiums to cover the costs of insuring the high cost patients who remain in the high quality plan. In this case, many ill patients also may be induced to waive liability, leaving them with lower quality care than they would be willing to pay for.¹⁷³ Thus, contracting over liability will not ensure that patients who value liability are able to obtain its protections even if they are willing to pay for the safety and compensation liability induces. In this circumstance, contracting over liability regime imposed by fiat because a liability regime imposed by fiat would allow them to obtain the higher quality without paying the penalty associated with the selection effects.¹⁷⁴

Beyond this, MCO contractual liability could harm healthy patients in the long-run to the degree to which it induces more plan separation than there was previously, since, as previously explained, healthy patients can benefit from pooling in the long-run because it allows them to obtain insurance, for less than its expected cost to the insurer, in the future

¹⁷³ In the extreme, MCO selection through plan design can lead to a "premium death spiral" under which all MCOs offer only lower quality (no-liability plans) even though most patients prefer higher quality plans (with liability). This premium death spiral can occur if a large percentage of healthy patients select the lower cost plan and if the loss of these healthy members of the insurance pool sends premiums above the ability to pay of many seriously ill patients. In this case, seriously ill patients also may move to the lower cost plan, thereby placing further pressure on the plan's price, and in turn, forcing more ill patients into the lower quality insurance plan. This can lead to a situation where all patients pool in the lower quality plan, even though most of them would prefer a higher quality plan. Moreover, the lower quality plan will no longer offer a significant price savings, as it will include so many ill patients. See Newhouse, *supra* note 169, at 1258 (1996) (discussing the "premium death spiral"); Cutler & Zeckhauser, *supra* note 165, at 563, 571 (presenting a nice discussion of the premium death spiral).

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 is \$1,000 without liability and 1,100 with it. The per person cost of the safety liability produces is \$100. Assume that liability increases 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 of \$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 the 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 a 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 healthy 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 care. 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.

when they are ill. Contracting over liability can operate to the determinant of healthy patients to the extent that it undermines this multi-period pooling by enhancing MCO's ability to induce separation.

VI. CONCLUSION

Proponents of contractual liability have long argued that states can best reform medical malpractice by simply allowing patients and medical providers to determine liability by contract. They also insist that any malpractice liability reforms that are adopted should grant patients and medical providers the right to contract over liability.

Contractual liability proponents insist that contractual liability is superior because they believe that 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. Patients who potentially benefit from malpractice liability generally would be better off if states reformed malpractice liability and imposed it by fiat than they would be under contractual liability. Malpractice liability is superior to contract for these patients because patients and medical providers do not have efficient incentives to contract over malpractice liability. This conclusion holds for both contracts negotiated directly with individual providers and for contracts offered by MCOs to their subscribers.

Contracting over liability is inefficient because malpractice liability contracts in effect regulate investments in medical quality, and these investments are both collective and durable (multi-period). Individual contracting between patients and providers is not an optimal mechanism for regulating the quality of medical care. Introducing this form of liability does not expand patients' choice in beneficial ways. It in effect prevents them from imposing collective, multi-period, multi-provider liability, and forces them to use a form of liability – individually negotiated liability – that is less valuable to them. This form of liability is less valuable because patients can be expected to waive in the hope of free-riding on the liability decisions of others. In addition, time-inconsistency problems will undermine the ability of contractual liability to induce pre-contractual investments in care.

By contrast, malpractice liability is a potentially effective mechanism for regulating such investments because it is a collective, multi-period, multi-provider form of liability. Patients benefit from the collective imposition of liability because this effectively regulates 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 (precontracting care). MCO contractual liability also is inefficient, but for different reasons. This form of contracting is inefficient because MCO contracting introduces distortions associated with "adverse selection." MCOs responding to selection effects will charge more for liability than just the cost of providing higher quality. This additional premium will induce patients who would value malpractice liability to waive the right to impose liability by contract.

Accordingly, granting patients the right to contract with providers for liability cannot be assumed to make patients better off. This is because contractual liability does not unambiguously increase the liability choices available to patients. All it does is alter their choices: replacing their ability to be governed by malpractice liability with the right to decide whether to select 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. Nor can it be assumed to be a welfare-enhancing component of any state-adopted reforms. States seeking to benefit their citizens likely could do so better by reforming malpractice laws directly.