

MEDICAL MALPRACTICE AND TORT LAW: REFORM OR REFINEMENT?

by

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ABSTRACT

For more than three decades, a debate has raged over the ability of the current civil justice system to properly evaluate complex product liability and medical malpractice cases. Critics of the tort system claim that the system is flawed because adjudication of disputes is a chaotic and inequitable process that results in excessively punitive or disproportionately gratuitous outcomes for winners and losers. The medical profession has been the primary driver of the reform movement because the frequency and severity of medical malpractice cases and professional liability insurance premiums have escalated substantially since the mid 1970s, resulting in an ongoing cycle of 'crises' among physicians and other medical professionals.

This analysis examined the foundations of tort law, negligence, and medical malpractice in the United States, and compared key elements of a major health system replacement alternative with the present tort process in achieving the primary objectives of deterrence of negligent behavior, attainment of distributional equity, achievement of economic efficiency, and realization of judicial proficiency. The focus of the study was on jurisprudential proficiency and the differences in perceptions by medically trained 'jurists', legally trained 'jurists', and untrained lay 'jurors' to the events portrayed in a three hour mock medical malpractice trial. Eight hypotheses were examined, and perception differences between medical students, law students and undergraduate students were identified. However, while the results of seven of the eight hypotheses were in the expected direction, only two proved to be statistically significant.

Nonetheless, the goal of the study was to build on the existing knowledge base concerning the efficacy of the current tort system as it relates to medical malpractice litigation, and suggest a viable reform alternative. Study results suggest that specialized Health Courts that replace juries with judicial panels with backgrounds in law and medicine could be a viable alternative for adjudicating medical malpractice cases. While certainly not definitive, study results encourage more research on the issue, including the implementation of state demonstration projects which can quell the tort reform debate.

INDEX WORDS: Medical Malpractice, Tort Reform, Health Courts, Civil Justice System

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DEDICATION

This Dissertation is dedicated to Sue, my best friend, life-partner, and greatest blessing.

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“It seems to me shallow and arrogant for any man in these times to claim he is completely self made, that he owes all his success to his own unaided efforts. Many hands and hearts and minds generally contribute to anyone’s notable achievements.”

Walt Disney

Indeed, many individuals shared a hand in my journey...some giving me advice and counsel...others offering encouragement and staking their credibility on my success...and still many more who offered instruction and constructive criticism along the way. I am truly thankful for you all.

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CHAPTER 1

Introduction

The civil justice system of the United States has been under indictment for almost four decades; not so much for its underlying principles as for its lack of efficacy in advancing social justice. Critics¹ claim that the present tort system is both inefficient in settling social disputes and ineffective in achieving social equity. These reformists contend that the system is flawed because adjudication of disputes is a chaotic and inequitable process and that the results of civil cases are often either unduly punitive or unnecessarily gratuitous to competing parties in civil disputes. They clamor for maximum legal restraint, personal responsibility and a *laissez-faire* approach to the resolution of private disputes.

Supporters² of the current tort process assert that the civil justice system must be preserved in order to achieve the fundamental goals of equity, efficiency and deterrence; which are accomplished by forcing responsible parties to bear the costs of injuries and by creating incentives for potential tortfeasors to exercise care to prevent such injuries. The dominant theme of system supporters is that big business, government, and powerful professions must be controlled, and the present civil justice system provides the only effective setting for doing so.

In short, opponents of tort reform say the existing system serves important policy objectives such as: (1) compensating victims (2) holding those responsible for causing harm accountable for their deeds, and (3) improving the economic efficiency of providing safety and

¹ The most vocal critics include the *American Medical Association*, the *American Tort Reform Association*, the *Manhattan Institute for Policy Research*, *Common Good*, and *Citizens Against Lawsuit Abuse*.

² Some of the staunchest supporters include the *American Bar Association*, *Public Citizen*, *The Foundation for Taxpayer and Consumer Rights*, and *The Center for Justice & Democracy*.

security to the public. Reform proponents claim that the civil justice system fails miserably in these areas.

David Hyman (2002, 1639-40) explains that the foundation for debate rests more on the perceptions of its supporters and detractors than on empirical fact. He posits that pundits, policy analysts, lawyers, legislators and other stakeholders typically pick a competing reality, pair it with some isolated salient fact or anecdote, and then offer a solution that maintains the status quo, modifies the tort system to match their philosophical needs, or creates a completely new structure for addressing societal wrongs. He goes on to say that supporters of the current tort system and reformists “...occupy mirror-image parallel universes, in which reality is, in every sense of the words, ‘socially constructed.’” In other words, if the system works for me, keep it; and if it does not operate to my advantage, change or scrap it. Unsurprisingly, support for and opposition to medical liability tort reform falls along political party lines, with conservative Republicans strongly in favor of reform and liberal Democrats preferring the status quo (Yates, Tankersley & Brace, 2009; Craddock, 2009; Klein, 2006; Clinton & Obama, 2006).

It cannot be overemphasized that the debate is not about the intentions of the tort system, but rather about the efficacy of tort law in accomplishing the fairness, deterrence and economic efficiency objectives inherent in the concept of tort law. Koenig & Rustad (2001, 71) say that “the purpose of the tort system is...to make the wrongdoer accountable for damages inflicted or injuries caused, whether by malfeasance, misfeasance, or nonfeasance.” While it is hard to argue against this logic, establishing the presence and proximate cause of an injury, identifying the offender, determining the extent of negligence, arriving at the appropriate amount of restitution, and judging the efficiency of accomplishing these tasks are often problematic.

The Core of the Debate

Tort law is supposed to be about equity. That is, the balancing of individual risks and social interests through a system of compensation and punishment that attempts to ‘make things right’ (Ripstein & Zipursky, 2001). Unfortunately, each side in the tort reform debate has its own unique definition of equity, as well as its assessment of whether or not the present court system is the right vehicle for insuring that specific perceptions of equity are achieved.

Public Citizen (2009), a non-profit Congressional lobbying group, argues that equity is about requiring the responsible party to bear the costs of injuries and creating incentives for potential tortfeasors to exercise care to prevent such injuries. The Foundation for Taxpayer and Consumer Rights (2009), another citizen group, sees equity as the accountability of big corporate/government interests to the average citizen through advocacy and legal activism. Similarly, The Center for Justice & Democracy (2009) depicts equity as protecting civil jury power to hold self-serving and dominating government and big business responsible for unscrupulous behavior. The language may be different, but the theme is the same – powerful interests cannot be trusted to act responsibly, and must be tightly controlled by the legal system.

Other groups or associations have a quite different view of equity. The American Tort Reform Association (2009a) views equity as fairness, predictability and efficiency in America's civil justice system, and argues that they are now lacking. The Manhattan Institute for Policy Research (2009) sees equity as allowing intellectual seriousness and practical wisdom to guide market-oriented policies that protect the economic interests of individual Americans and institutions. Citizens Against Lawsuit Abuse (2009), a grassroots network of state organizations, argues that equity is balance, fairness, responsibility, and restraint in our court system. Again, the theme is clear – the current punitive system does not produce fairness and equity in resolving

private disputes; rather it sends mixed signals to society and the marketplace, which drives up both economic and social welfare costs.

The Public Policy Question

The primary flash points for the tort reform debate involve product liability and medical malpractice cases, and the conundrum facing public policy makers is how to determine whether or not the present civil justice system is efficient and effective in adjudicating disputes in these arenas. And if not, can simple refinements resolve the problems inherent in the tort system or is it necessary to implement a major system reform that moves medical disputes into specialized health courts in order to better achieve equity, efficiency, impartiality and justice? This project is intended to provide useful information that can inform the decision-making process.

History authenticates that specialized procedures and courts have been a prominent element of the legal landscape for almost a hundred years³, and are now widespread vehicles for dealing with therapeutic jurisprudence⁴. Perhaps some kind of refinement or reform of the current tort process will enhance jurisprudential proficiency in the adjudication of medical disputes as it has done for other legal domains.

Accordingly, the objective of this study is to examine the forces and factors affecting the debate through a review of the nature and history of torts and negligence; an examination of some of the specific causes and implications of the dispute; the effects of the continuing cycles of medical malpractice crises⁵ triggered by economic pressures; and conduct an empirical study of jurisprudential proficiency in the context of a medical malpractice conflict. A brief

³ Workers Compensation was the first revolutionary tort reform. Adopted by individual states in the 1910s, the workers compensation system shifted the emphasis away from placing blame to the provision of fair and predictable compensation for injured parties (Fishback & Kantor, 1998).

⁴ Specialized courts in both the civil and criminal justice arenas are now burgeoning in the United States, and include tax courts, mental health courts, drug courts and domestic violence courts (Rottman, 2000).

⁵ Cycle 1: 1975-1977 – Cycle 2: 1984-1986 – Cycle 3: 2003-present.

background comparison of the current tort system and proposed health courts precedes a more in-depth study of jurisprudential proficiency⁶ conducted through a quasi-experimental medical malpractice mock trial.

My expectations are that the analysis and empirical research will add to the body of evidence that (1) conventional tort reforms will likely not be effective in either solving the myriad of problems inherent in adjudicating medical disputes nor ending the debate over tort reform, (2) major reform of the medical malpractice tort process is probably necessary, and (3) the philosophical and procedural characteristics of specialized health courts make it the most plausible reform structure to outperform the existing civil justice system for medical malpractice litigation. And while my study did not yield statistically significant results, the literature and my study data do indicate that these expectations are not unreasonable.

⁶ Jurisprudential proficiency is defined as the ability of jurors/jurists to effectively evaluate complex medical malpractice case facts and render verdicts that contribute to the achievement of tort system goals of deterrence, distributional equity and economic efficiency.

CHAPTER 2

History and Development of Tort Law

Cottages destroyed by a fire emanating from a neighbor's property⁷; the blinding of a man as a result of being unintentionally struck with a stick⁸; a barrel of flour rolling out of a warehouse window striking a pedestrian⁹; the collapse of a wheel on an automobile, injuring the driver¹⁰; the injury of a woman resulting from a fall after being startled by exploding firecrackers¹¹; the accidental sinking of a barge with the complete loss of its cargo¹²; harm caused to many medication takers because of the concealment of dangerous side effects¹³; severe eye impairment because of a failure to properly diagnose and treat glaucoma¹⁴; broken bones and contusions resulting from a fall off the steps of an apartment building¹⁵; embarrassment due to the discovery of a 'peep hole' in a hotel room wall¹⁶; and use of the Internet to defame a public figure¹⁷ are just a sample of incidents that inhabit the broad spectrum of tort law in America.

Tort law is an expansive branch of civil law that deals with personal wrongs or injuries resulting from interactions between private parties, either individual or institutional. Tort proceedings are intended to evaluate these adverse events, determine culpability, and establish appropriate redress for the injured party.

⁷ *Vaughn v. Menlove*, 132 Eng. Rep. 490 (1837).

⁸ *Brown v. Kendall*, 60 Mass. 292 (1850).

⁹ *Byrne v. Boadle*, 159 Eng. Rep 299 (1863).

¹⁰ *MacPherson v. Buick Motor Co.*, 217 N.Y. 382, 111 N.E. 1050 (1916).

¹¹ *Palsgraf v. Long Island R. Co.*, 162 N.E. 99 (N.Y., 1928)

¹² *United States v. Carroll Towing Co.*, 159 F.2d 169 (2 Cir., 1947).

¹³ *Toole v. Richardson-Merrell, Inc.*, 251 Cal. App.2d 689, 60 Cal Rptr. 398 (1967).

¹⁴ *Helling v. Carey*, 519 P.2d 981 (Wash. 1974).

¹⁵ *Coggin v. Starke Brothers Realty Co., Inc.*, 391 So. 2d 111 (Ala. 1980).

¹⁶ *Carter v. Innisfree Hotel, Inc.*, 661 So. 2d 1174 (Ala. 1995).

¹⁷ *Blumenthal v. Drudge*, 992 F. Supp. 44 (D.D.C. 1998).

The earliest tort cases emerged through English common law in the Twelfth and Thirteenth Centuries and were largely intended to provide injured parties with remedies for intentional misconduct that threatened public order. The primary purpose of these actions was to secure compensation for victims of physical injury or property rights violations. Defendants were often either the Crown or members of the aristocracy. In short, tort law first developed to provide a mechanism for the ordinary citizen to gain redress for abuses by the powerful or privileged classes (Koenig & Rustad, 2001).

Early common law used tort actions to punish the wrongdoer who assaulted another, seduced his neighbor's wife, or created mayhem in public places. These intentional transgressions comprised the primary venue for torts until the railway age when torts began to expand into various forms of compensation for negligence. By the mid 1800s, negligence law was said to be essentially railway, streetcar and steamboat law, with the major emphasis shifting from private wrongs to industrial mishaps (Koenig & Rustad, 2001).

The twentieth century saw significant evolution of negligence concepts as society matured and the relationship between individuals, institutions and enterprises became more complex. The plethora of new products and endeavors further complicated these relationships. Automobiles, airplanes, electronics, power tools, household appliances, cosmetics, pharmaceuticals and public utilities ushered products liability into the forefront of torts by the 1960s. Mass communication and the pervasiveness of the public media raised new issues of privacy, libel, slander and defamation that led to abuses, resulting in more tort actions. At the same time, higher expectations and standards of performance led to closer scrutiny of the service and hospitality industries, and medicine and medical devices, creating new arenas for torts in the last half of the century. Workplace and social etiquette changed as the result of gender and race

advances, creating more opportunities for tort cases. The twenty-first century is now taking torts into the arena of intellectual property, privacy and identity theft (Koenig & Rustad, 2001).

Theories of Tort Law Philosophy

To appreciate the evolution of tort law, it is essential that one comprehends the theories and philosophies that drive the tort concept in the American judicial system. Tort law essentially involves the balancing of individual and social interests. Legal theorist William Prosser (1964, 14) suggested that "...perhaps more than any other branch of the law, the law of torts is a battleground of social theory." This theoretical 'battleground' is a conundrum of sorts because each theory represents a parallax view of the foundation of tort law. Single theories seem incomplete because each reflects only the part of the foundation its author sees. Taken together, however, these theories contribute a great deal to the understanding of the whole. A brief examination of the work of several influential legal scholars provides useful insight into the key philosophical concepts that drive tort law today.

Keating (2001) sees three basic models of tort law: (1) the Economic conception that accident law promotes the general welfare as measured by money or wealth, (2) the Libertarian conception that accident law promotes individual rights, not the general welfare, and (3) a Kantian concept that the accident system is driven by fairness and freedom. Keating is a strong proponent of the Social Contract Theory espoused by Immanuel Kant and John Rawls, which he views as a moral/behavioral theory of law.

Social Contract Theory is based on the belief that there was an early agreement among free peoples to form a society and live by some generally acceptable rules of behavior within that society. In this model, one does not have to behave *rationally*, but must act *reasonably* or be punished for the aberrant behavior. Tort law based on this concept of societal behavior is

thought to balance the freedom of one party to act and pursue his own interests with the security needs of other members in society.

Keating says that in pursuing their own interests, every individual imposes some risk on others. The balancing of freedom and security depends on the reciprocity and magnitude of those risks. Driving an automobile imposes a risk on others, but the risk is thought to be reciprocal because it is a common activity engaged in by most members of the modern society. Running a nuclear power plant involves a much stronger imposition of risk because it is not reciprocal, and a mishap is likely to lead to injuries of great magnitude. Accordingly, "...risk impositions...pit the liberty of injurers against the security of victims and the law of accidents sets the terms on which these competing freedoms are reconciled. Its task is to find and fix terms that are fair (Keating, 2001, 6)."

Negligence and strict liability are basic tenets of modern accident law, and most tort cases involve the fixing of fault through one of these doctrines. The moral theory states that once the type of fault is determined, a payment of damages is made by the injurer to the victim. No fault means that the victim must bear the cost of his own injury. A finding of fault through simple negligence will result in redress for the harm caused to person or property. This is generally the case when there is a normal risk from the activity of the injurer or the risk is essentially reciprocal. However, some injuries are the result of inherently dangerous activities, even when those activities are legitimate and reasonable. Public utilities or airline travel are examples. When injuries result from these activities, strict liability is applied and compensation to the victims is generally much higher than for simple negligence. This is seen as a mechanism for the balancing of risk among the parties.

The moral/behavioral theory says that each member of society has a duty to use reasonable care in conducting life or work activities, and must take reasonably feasible precautions to avoid harm to others. This dogma is typically referred to as the average reasonable person doctrine (ARP), and is often the basis upon which fault is determined. Judge Learned Hand formally introduced this cost-benefit balancing formula in the case of *United States v. Carroll Towing*¹⁸. In this case, a barge owner was charged with negligence for failing to properly secure his vessel at harbor. Judge Hand stated that:

[T]he owner's duty, as in other similar situations, to provide against resulting injuries is a function of three variables: (1) The probability that she will break away; (2) the gravity of the resulting injury, if she does; (3) the burden of adequate precautions. Possibly it serves to bring this notion into relief to state it in algebraic . . . terms: if the probability be called P; the injury, L; and the burden, B; liability depends upon whether B is less than L multiplied by P: i.e., whether B less than PL.

Accordingly, financial liability would only be imposed for a tort action if the burden of preventing the injury does not exceed the magnitude of the injury multiplied by its likelihood of occurring.

Another theory by Stephen Perry (2001) takes a slightly different track. He does not believe that one individual unilaterally imposes a risk on others, but rather subscribes to the notion that risk is jointly created by interactions of people and enterprises. He contends that it is rare when one party is a passive player in an event. The bottom line of Perry's philosophy is that outcomes and responsibility are linked, not action and outcomes. Bad actions are not grounds for judging guilt, but bad outcomes are.

¹⁸ See footnote 12.

Perry's Outcome-Responsibility Theory is based on the ethical principle of consequentialism, which places a high moral value on doing *good*. A competing theory is founded upon the deontological belief that doing one's *duty* is more important than doing *good*. Tort law does not penalize one for failure to do her duty, but rather for causing harm i.e., for failing to do good.

Outcome-responsibility has two basic aspects...foreseeability and causation. As applied to tort law, Perry posits that the key question that must be answered in tort proceedings is: "Did the actor have the capacity to foresee the harm, and if so did he have the ability to act on that foresight to avoid the harm?" If the 'ordinary' person – instead of Keating's average reasonable person – could have foreseen the harm, he must avoid it. If he fails to do so, he must compensate the victim. If the 'ordinary' person could not have foreseen the adverse event, no responsibility for harm can be attributed to the injurer.

Another view of the purpose of tort law is explained through the concept of functionalism (Stone, 2001). Functionalists believe that the purpose of tort law is the pursuit of an overarching goal such as reducing accident costs through the achievement of one or more sub-goals like deterrence or compensation. This, they say, is a normative practice that helps to 'get things right.' Functionalists consider the payment of damages as purely a mechanism for enlisting plaintiffs and lawyers in the operation of a system of efficient regulation of social activity. In other words, payments to injured parties are bribes for participating in the system rather than compensation for a wrongdoing. They believe the sub-goals of deterrence and compensation are best handled by de-linking interpersonal liability through a no-fault system of distributive justice.

A contra view is the concept of corrective justice, which advances the proposition that the purpose of tort law is to right wrongs and make the injured party whole. When a party has been

injured, she is entitled to compensation by the injurer. Corrective justice introduces the concept of negligence liability much in the same way Perry's outcome-responsibility scheme defines it. If the injurer acts irresponsibly, he must provide compensation to restore the victim to his state of affairs prior to the negligent act. The corrective justice model of tort law is based on Aristotelian precepts of ethics and fairness, where the parties are treated equally and compensation to the injured party does not depend on awareness of the possibility of harm, but merely the commission of the harmful act itself (Stone, 2001).

Coleman (2001) is a strong proponent of the theory of corrective justice because he believes that it explains the values that society seeks to achieve in public life. This contrasts with a widely held economic theory of tort law, which advances the notion that tort litigants bear no normative relationship to one another and are essentially disconnected by the structure of the system. The economic theory posits that penalties will act as a deterrent and lead to more precautions taken by a potential injurer, which in turn will reduce overall accident costs. This theory also subscribes to the functionalist view that compensation acts as an incentive for 'private attorneys general' to participate in the system.

Coleman takes great exception to the economic theory of torts. He says that this fiscal model makes tort law look "opaque" and "mysterious" because its explanation fails to allow for any intelligible or coherent principles of justice that are inherent in the corrective justice concept. "Tort law..." he says "...tells us that the concept of wrong relevant to fairness is objective: a person can act wrongly without having a wrong intention, and thus, plausibly, without being morally culpable for what he has done." This tenet was well established in *Vaughn v. Menlove* in 1837¹⁹, and appears to be totally ignored in the economic theory of tort law.

¹⁹ See footnote 7.

While acknowledging the criticisms of the corrective justice theory, Ripstein and Zipursky (2001) are also strong supporters of the concept. Critics say that corrective justice (1) offers no practical guidelines for resolving many modern day problems (2) provides only normative guidance that often does not conform to the actual functioning of the law, and (3) misses the central drivers of the law...money and deep pockets. Ripstein and Zipursky counter those criticisms with the argument that we should not expect corrective justice to be clean and orderly because negligence itself is not always clearly defined. The basic foundation of corrective justice is the principle of ‘making things right’, and this often means that the rules of engagement in the courtroom must be flexible and perhaps even inconsistent at times.

One of the inconsistencies that draw the ire of critics is shifting of the burden of proof on the issue of causation. This happens occasionally in tort cases where plaintiffs have been harmed but the specific injurer cannot be identified. This is illustrated by the cases of *Summers v. Tice*²⁰ and *Sindell v. Abbott Laboratories*²¹.

In *Tice*, three men were bird hunting, and while one was flushing the birds from the brush, the other two fired their weapons. The first hunter was hit in the eye with a pellet and severely injured. He brought a tort action but there was no way to identify which of the other two individuals was the proximal cause of his injury. The court shifted the burden of proof to the defendants to prove that one of them was not the cause of the injury. Since neither individual could prove he was *not* the cause, both were required to participate in compensating the plaintiff.

Sindell presented an even more expansive shifting of the causation burden in a mass tort case. Between 1941 and 1971 thousands of pregnant women were given diethylstilbestrol (DES), a drug which is a synthetic compound of the female hormone estrogen, for the purpose of

²⁰ 199 P.2d 1, Cal., 1948.

²¹ 26 Cal. 3d 588, 163 Cal. Rptr. 132, 607 P.2d 924 (1980)

preventing miscarriage. While the FDA had warned of possible dangers in 1947, the drug continued to be prescribed. More than thirty years later the daughters of many of these DES mothers developed adenocarcinoma and died. During the thirty year period, there were more than thirty manufacturers of the drug, so it was impossible to identify the specific injurer in each case. The court again shifted the burden of proof of causation to the defendants, who, of course, could not prove their innocence. The principle of ‘market-share liability’ was spawned by this case.

Rather than being viewed as an inconsistency of corrective justice, Ripstein & Zipursky (2001) and Geistfeld (2001) view this flexibility in rules as being the essence of the moral reasoning of corrective justice and “...one of the more reasonable methods of dealing with the costs for wrongful interactions between persons (Chapman, 2001).” They believe that the injured party should be made whole by the party who caused the harm and any obstructions that prevent justice should be overcome by the process.

The Foundations of Modern Tort Law

Negligence and accountability first entered the American court system in 1850 in the case of *Brown v. Kendall*²². In the course of trying to separate their two dogs from fighting, Kendall picked up a stick to hit the dogs. During a backswing he accidentally hit Brown in the eye inflicting severe injury. The major doctrine of this case became fault-based accountability, where the court stated that:

...the rule that the plaintiff must come prepared with evidence to show either that the *intention* was unlawful, or that the defendant was *in fault*; for if the injury was unavoidable, and the conduct of the defendant was free from blame, he will not be liable.

²² See footnote 8.

Thus, negligence took center stage in tort law. This landmark ruling provided the impetus for an expansion of fault-based liability in the early stages of the Industrial Revolution. “In the pre-industrial society, there are few personal injuries, except as a result of assault and battery. Modern tools and machines, however, have a marvelous capacity to cripple and maim their servants (Friedman, 1985, 658).”

It was in the period of 1840 – 1860 that railroads literally became the driver of the negligence concept. Major themes of this period that aided the development of tort law were (1) judicial concern for the risks created by modern enterprise, and the willingness to use liability rules to control those risks (2) judicial willingness to provide redress for victims of enterprise-induced injuries, and (3) judicial willingness to resolve uncertainties in law in favor of the victim’s rights to secure compensation for their losses (Geistfeld, 2001). Once the ‘wheels’ of negligence started rolling, tort law became both increasingly separate from criminal law and more sophisticated. Francis Hilliard produced the first American treatise on tort law²³ in 1859; torts became a separate subject at Harvard Law School in 1870; and the first tort casebook was published in 1874²⁴.

The early principles of negligence were broad and simple, but as the Industrial Revolution progressed and society began its march toward a higher level of sophistication, negligence began to be redefined by liability-limiting doctrines such as contributory negligence²⁵, assumption of risk²⁶, and the fellow servant rule²⁷. These refinements had the effect of shrinking the umbrella of negligence through the last half of the nineteenth century and

²³ Hilliard, I. F. 1859. *The Law of Torts*. Boston.

²⁴ Ames, J. 1874. *Select Cases on Torts*.

²⁵ *Neal v. Gillett*, 23 *Conn. Reports* 437 (*Sup. Ct. Conn.* 1855).

Kirtley v. Chicago, Minneapolis and St. Paul Ry. Co., 65 *F.* 386, 392. (*W.D. Mo.* 1895).

Payne v. Chicago and Alton R.R. Co., 129 *Mo. Reports* 405 (*Sup. Ct. Mo.* 1895).

²⁶ *Western and Atlantic R. R. Co. v. Strong*, 52 *Ga.* 461 (*Ga Sup. Ct.* 1874).

²⁷ *Farwell v. Boston and Worcester Railroad*, 45 *Mass.* 49 (1842).

the early years of the twentieth century. One should not be misled, however, into thinking that there was a mass retraction of negligence during this period. In fact, tort law was simply a developing battleground for two strong models of justice (Koenig, 35).

Statutory remedies²⁸ began to replace tort law in the early 1900s, and led some to characterize tort law as “...a sleepy outpost prior to the 1940s (Koenig, 46).” Tort law began to unfold in earnest after World War II, with the emphasis shifting to rights and remedies. It reached a high water mark in the 1960s and 1970s with landmark cases that launched new doctrines such as products liability²⁹, strict products liability³⁰, comparative negligence³¹, a standard of reasonable care³², premise liability³³, bad faith dealings³⁴ and punitive damages³⁵.

Since the 1980s there has been some statutory retrenchment in the application of negligence-based torts with reforms that have capped punitive damages, reduced statutes of limitation, restricted comparative negligence, and loosened or eliminated joint and several liability. This retrenchment in the last quarter of the twentieth century was attributed to the normal political reaction from competing interest groups. Prior to that time, the competition was largely confined to the courtroom, but the changing political climate allowed the debate to become both more public and driven by economic considerations, typically by large corporations (Nockleby and Curreri, 2005). Thus, many states redefined negligence-based tort principles to protect the economic interests of their powerful constituencies (Nockleby and Curreri, 2005).

²⁸ The Safety Appliance Act of 1893 and Federal Employer’s Liability Act of 1908, and a myriad of State Worker’s Compensation laws are examples of this metamorphosis.

²⁹ *Henningsen v. Bloomfield Motors, Inc.*, 169 A.2d 69 (N.J. 1960).

³⁰ *Greenman v. Yuba Power Prods., Inc.*, 377 A.2d 897 (Cal. 1963).

³¹ *Li v. Yellow Cab Co.*, 13 Cal. 3d 804, 5432 P.2d 1226 (1975).

³² *Rowland v. Christian*, 443P.2d 561 (Cal. 1968).

³³ *Kline v. 1500 Massachusetts Avenue Apartments Co.*, 439 F.2d 477 (D.C. Cir. 1970).

³⁴ *Fletcher v. Western National Life Insurance Co.*, 10 Cal. App.3d 376, 89 Cal. Rptr. 78 (1970).

³⁵ See footnote 14.

Despite the strong Republican Party push in the 1990s and beyond to narrow the scope of negligence to protect business and medical interests, the negligence concept continued to expand in the last two decades of the twentieth century. Tort law continues to evolve today, becoming increasingly complex and progressively more amorphous (Nockleby and Curreri, 2005). Roscoe Pound (1942, 235) probably captured it best when he said: “Tort law’s remarkable quality of continually adapting old causes of action to new threats and dangers make it an important institution of social control.”

CHAPTER 3

Negligence and Medical Malpractice Law

It is indeed ironic that one of the major battle grounds for testing the negligence concept and the disparity between the system's goals and performance is in the field of medical malpractice, where less than one percent of all accidental injuries occur (Saks, 1992, 1150 & 1193). The malpractice arena is also unrepresentative of the civil litigation system for another reason; it is standards based, while most other areas of law have very murky standards or no standards at all. Why then does the medical malpractice milieu occupy center stage in the civil justice debate? Very simply, it is because the health care system represents a highly personal physical and emotional interaction between patients and caregivers, and it consumes such vast sums of money.

Medical malpractice liability was only an 'annoyance' at the beginning of the twentieth century, but blossomed into a major crisis by the end of the century by redefining the meaning of error and negligence, altering the standard of care, and transforming the concept of tort law (Hogan, 2003). As a result, the entire foundation of tort law has been challenged and substantial time and effort is now being devoted to reforming the tort system as it relates to professional liability.

Until late in the nineteenth century, most civil actions for malpractice were predicated either on battery claims or the breach of contract principle. This focus began to shift when the courts recognized that physicians simply could not guarantee the results of their treatment; only that they must pledge to provide treatment to patients using their best judgment and a reasonable

standard of care. The shift in locus from contract law and battery to negligence became complete in the case of *Pike v. Honsinger*³⁶ in 1898.

Pike involved the treatment of a knee injury suffered by a farmer, George Pike, who was kicked by his horse when it was startled by another horse in 1888. After his injury, Pike consulted a local physician in Clinton County, New York, one William Honsinger. Dr. Honsinger diagnosed the injury as a ruptured ligamenti patella, which was later found to be a fractured patella. He wrapped and splinted the knee and leg, and prescribed bed rest. Within a week, Pike became frustrated with the lack of progress and sent for Dr. Honsinger's son, Dr. Willis Honsinger, who eventually took over the case. Treatment continued for the next several months but Pike became increasingly restless and wanted to return to his farming duties. Dr. Honsinger advised against it and told Pike that he could not be responsible for any further injury if he failed to follow his instructions.

The case first came to court in 1891 because Pike had lost mobility and was unable to fully engage in his farming activities. Testimony from general witnesses and 'expert' physician witnesses conflicted...essentially defining the case as either misdiagnosis, negligent treatment or failure to give proper instructions by Dr. Honsinger, or the failure of Mr. Pike to follow the physician's orders. It is notable that the judge was very active questioner of witnesses, not a common practice in jury trials today. Upon completion of all testimony, the judge did not send the case to the jury, but rather rendered a directed verdict in favor of the defendant.

The case was appealed to the Court of General Term in Albany on the grounds that Judge Kellogg improperly directed the verdict, since the testimony revealed a conflict of facts. The Court nonetheless again ruled in favor of Dr. Honsinger, and a further appeal followed.

³⁶ 9 *E.H. Smith* 201, 155 *N.Y. 201*, *N.E. 760* (1898)

Thus, it was in the New York Court of Appeals in 1898 that the most important medical malpractice case in history was decided. *Pike* clearly provided a turning point for malpractice law and altered the history of medicine in general (Hogan, 2003). In fact, *Pike* became the lens through which most medical malpractice cases was viewed in the twentieth century because it established several standards of negligence that must be met for the assignment of liability to a treating professional. Judge J. Vann articulated the proper behavior that a physician must use as:

That reasonable degree of learning and skill that is ordinarily possessed by physicians and surgeons *in the locality* where he practices.... The law holds him liable for an injury to his patient resulting from want of the requisite knowledge and skill, or the failure to use his best judgment. The rule in relation to learning and skill does not require the surgeon to possess the extraordinary learning and skill which belong only to a few men of rare endowments, but such as is possessed by the average member of the medical profession in good standing. Still, he is bound to keep abreast of the times, and a *departure from approved methods in general use*, if it injures the patient, will render him liable however good his intentions may have been. The rule of reasonable care and diligence does not require the exercise of the highest possible degree of care...to render a surgeon liable...*there must be a want of ordinary and reasonable care, leading to a bad result*. This includes not only the *diagnosis and treatment*, but also the giving of *proper instruction* to his patient in relation to conduct, exercise, and the use of an injured limb. The rule requiring him to use his best judgment does not hold him liable for a mere error in judgment, provided he does what he thinks is best after careful examination. His implied engagement with his patient does not guaranty a good result, but he promises by

implication to use the skill and learning of the average physician, to exercise reasonable care, and to *exert his best judgment* in the effort to bring about a good result.

[Emphasis added]

Prior to *Pike*, medicine had been practiced heterogeneously with little regulation. The *Pike* decision moved medicine in the direction of the homogeneity and regulation to which it now accedes.

The next milestone in malpractice law was the gradual introduction of new technologies to medical practice. The use of various types of new tools such as microscopes, stethoscopes, ophthalmoscopes, laryngoscopes, thermometers, spirometers and sphygmomanometers in the early years of the twentieth century enhanced diagnostic capabilities, both increasing the effectiveness of the medical practitioner and raising expectations of patients. The transformative technology, however, proved to be the introduction of the x-ray machine; mainly because it provided the first real record of a patient's condition that could be examined and challenged at a later date. This tool, like all new technology, proved to be both a positive and a negative for physicians. It often protected them from what the medical profession called "shyster lawyers" and "blackmail artists," but almost as often worked in the opposite direction. In any event, the use or non-use of the x-ray machine dominated the malpractice landscape for the first thirty years of the century.

During this period, local standards of care became more disparate, as urban areas added x-ray technology more rapidly than rural areas. This meant that physicians...and now hospitals...were gradually being held to a higher standard in some areas than professionals and medical institutions in other areas. Fractures were the most common events under scrutiny, but many other ailments involving the lungs, bladder, stomach, heart and skin were also in play. In

fact, in 1903, Professor William Allen Pusey, a noted Dermatologist at the College of Physicians and Surgeons in Chicago, wrote in the first textbook on x-ray therapy that the Roentgen ray was a tool that could be used in diagnosing and treating fifty-two diseases (Hogan, 2003, 62).

One notable early case involving x-ray technology occurred in Washington State in 1910, where the Court³⁷ ruled that a physician was not negligent simply for failing to take an x-ray of a fracture if a proper diagnosis could be made without it. Nor, the Court said, was he negligent for not having a machine in his office.

As more physicians began to have access to the technology, the courts increasingly did hold physicians liable for failing to diagnose because x-rays were not taken. This was demonstrated in a 1918 Colorado case³⁸ where a physician diagnosed a woman who had fallen as having a bruised leg. She was in bed for several weeks, on crutches for more than a year and a half, and finally could only ambulate with the use of a cane for the remainder of her life. Five years after the initial injury, the woman went to see another physician who x-rayed the leg and found evidence that her femur had actually been fractured. She took the matter to court and the initial physician was found negligent for failing to diagnose the fracture. She was awarded \$1,500 in damages. It took over a quarter of a century to raise the standard of care to require x-rays in fracture care, but even then, standards were less than homogeneous (Hogan, 2003).

Of course, use of x-ray machines brought other problems to the courts. Improper use of the technology caused over-exposure burns and radiation related ailments. This led the courts to set licensing and safety standards³⁹, and the extension of the principle of *res ipsa loquitur*⁴⁰ (the act speaks for itself) from general torts to medical malpractice.

³⁷ *Wells v. Ferry-Baker Lumber Co.* 57 WA 658, 107 Pac 869 (1910).

³⁸ *Foote v. Bonnet* 47 Colorado 282 (1918).

³⁹ *Curley v. McDonald* 160 NE 796 Mass. (1928).

⁴⁰ *Moore v. Steen* 283 P.R. 833 Cal. (1929).

Another significant development in the history of medical malpractice was occurring concurrently with this rise in technology. More lawsuits brought more sophistication to the legal arguments and the need for a financing mechanism for physicians to defend themselves without consuming personal assets.

Initially, state medical societies set up defense funds as a part of member dues. There were two primary caveats of participation in the funds, however. First, physicians had to use medical society attorneys; and secondly, physicians could never agree to compromise or settle a case without trial. The theory was that experienced society attorneys could best represent the interests of the profession, and that imposing significant costs on plaintiff attorney's with limited chances of reward would discourage malpractice cases.

Private insurance was highly discouraged by medical societies, primarily because they wanted to protect their revenue streams. Private insurance did gradually replace society defense funds and society alliances with insurance companies. Roughly 10 – 20% of physicians were privately insured in 1920, and this rose to more than 80% by the 1950s. The unintended consequence of wide-spread insurance coverage was more malpractice filings and higher awards (Hogan, 2003, 50).

Early in this evolution, James Lewis, counsel for the New York State Medical Society, warned that malpractice insurance was "...a Pandora's box waiting to be opened by plaintiff's attorneys." He said that once patients knew that malpractice awards would not come directly out of the pockets of physicians, more suits would be filed and higher awards would be granted. He appears to have been correct in that assessment.

Other critical events that affected the medical malpractice landscape were occurring simultaneously with the increasing incidence of malpractice filings. Physician advocates from

both the medical and legal professions were writing prodigiously on how to avoid malpractice and how to win cases once they were filed. Thus, the art of defensive medicine was born.

Medical activists such as Richard Kovacs⁴¹, I.S. Trostler, M.D.⁴² and Czar Johnson⁴³ strongly recommended defensive strategies for physicians such as: (1) practice standardization, (2) avoidance of guarantees about care outcomes, (3) restraint from criticizing other physicians' care, (4) the need for complete and accurate medical record-keeping, (5) proper use of the Statute of Limitations and financial collection's strategies, (6) clear and complete informed consent, (7) risk management, and (8) how to conduct themselves in court testimony.

Another subtle force was also at work...the institutionalization of the 'conspiracy of silence' dogma. Medical organizations and the mainstream of medical practitioners used peer pressure and the threat of professional ostracism to coerce physicians not to testify against other medical professionals. Interestingly, all of the articles written during this period concerned administrative processes and procedures; there were no articles concerning standards of care or any advice that would actually improve the delivery of care. The message was clear...physicians don't make mistakes. Sadly, many medical professional still believe that today.

Another critical but inconspicuous sea-change was also taking place that fed the appetite for medical malpractice as mid century approached. In 1900, there were roughly 132,000 physicians and 107,500 attorneys practicing in the United States. By 1930, physicians numbered 153,800 while the number of lawyers had jumped to 160,600. Furthermore, medical school enrollment in 1930 stood at 21,500 and law school enrollment was at 46,700 (Hogan, 2003, 67).

⁴¹ "Accidental Injuries in Office Practice." *Journal of the American Medical Association*. 100: 2. January 14, 1933. 107 – 110.

⁴² Many papers and speeches from 1924 – 1935 including:

"An important malpractice decision." *Radiology* 3. 1924.

"The malpractice insurance question." *Radiology* 8. 1927.

"Medical malpractice insurance." *American Medicine* 39. January 1933:19.

"Some lawsuits I have met and some of the lessons to be learned from them." *Radiology* 25. 1935.

⁴³ "Medical Malpractice Suits." *Minnesota Medicine*. Vol. 11. Paper One: 333 and Paper Two 493-494. 1928.

Anyone paying attention at that time could have predicted that a spike in lawsuits was in the offing, and indeed it was.

The Era of Expanding Professional Liability

World War II captured the attention of America for roughly a decade beginning in the late 1930s, leading to a decrease in malpractice cases. During this time, however, the Country was undergoing a significant metamorphosis. The Depression and War had created a more urbane and attentive society with higher expectations of performance of American institutions. Medicine was no exception. The courts expanded the doctrines of *res ipsa loquitur* and *respondeat superior*, detailed recordkeeping became compulsory for physicians and other medical institutions, and the advent of health insurance changed the relationship between medical institutions and patients. These developments created more accountability, leading to better care and more lawsuits.

Ironically, the medical profession itself became the catalyst for the next major wave in the tide of malpractice expansion. As we have seen throughout history, cover-ups generally create more outrage than the offense being hidden; and the orchestrated refusal of physicians to testify in malpractice cases proved to be no exception. This conspiracy of silence was first formally recognized in 1903⁴⁴ where the Nebraska court wrote:

We cannot overlook the well-known fact that in actions of this kind it is always difficult to obtain professional testimony at all. It will not do to lay down the rule that only professional witnesses can be heard on questions of this character, and then, in spite of the fact that they are often unwilling, apply the rules of evidence with such stringency that their testimony cannot be obtained against one of their own members.

⁴⁴ *Johnson v. Winston* 68 Neb. 425, 94 N.W. 607 (1903).

By the late 1940s, the frustration of plaintiffs and courts over the inability to find credible expert witnesses led attorneys to look for a new tactic to expose alleged negligence. If expert witnesses were not available, then it became incumbent on plaintiff attorneys to prove through alternate means that negligence had occurred. This came in the form of an old doctrine...*res ipsa loquitur*.

The original concept of ‘the act speaks for itself’ was borne out of the 1863 English case of *Byrne v. Boadle*⁴⁵, where a barrel had fallen out of a warehouse and hit a pedestrian in the street. The reasoning was that the owner of the warehouse had custody of the barrel, it fell from his warehouse and injured the pedestrian; therefore, no testimony or supplemental facts were necessary to deduce that the owner was negligent. Rarely used in medical malpractice cases⁴⁶ until the mid 1940s, the doctrine of *res ipsa loquitur* became a mainstay of medical malpractice legislation for the next twenty years. In fact, the 1950s could be characterized as the decade of war over this form of ‘circumstantial evidence.’

The problem with the concept of *res ipsa loquitur* is that it was difficult to define. Was every bad outcome *de facto* evidence of negligence? Certainly not. Accordingly, various plaintiffs and state courts wrestled over the precise application of the concept *ad infinitum*; causing the shift to *res ipsa* to be “gradual, erratic, and seemingly irrational (Hogan, 2003, 101).” Some courts accepted the concept readily and others refused to apply the doctrine, only to flip-flop at a later time. The key to acceptance – if indeed there was a key – appeared to be establishment of a causal relationship between the physician/hospital intervention and the outcome. Did the physician or institution control the resulting event? If yes, the doctrine applied; if not, there was no negligence.

⁴⁵ See footnote 11.

⁴⁶ *Res ipsa loquitur* was first applied in a medical malpractice case by a California court in *Meyer v. McNutt Hospital*, 173 Cal. 156, 159 P.436 (1916).

In one case⁴⁷, a young woman entered a hospital to deliver a baby and sustained a compression fracture while unconscious. The trial court, appeals court, and Supreme Court agreed that the *res ipsa* principle could be used because such injuries were not incident to the delivery of a baby. However, the patient's testimony revealed that a convulsion may have been the cause of her injuries, therefore negating that "the thing did *not* speak for itself." This case also signaled a sentinel shift in the burden of proof. As the decade of the 1950s progressed, it became increasingly apparent that the malpractice defendant had to prove negligence did not occur.

Res ipsa loquitur was expanded beyond individual responsibility in the case of *Ybarra v. Spangard*⁴⁸, where the plaintiff suffered a shoulder injury while undergoing an appendectomy. The significance of this case is that since it was difficult to assign blame a particular physician, anesthesiologist, nurse or attendant for the injury, each defendant was held liable. Therein, the court signaled an understanding of the changing nature of the medical encounter and the increasing interconnectedness of health care delivery (Hogan, 2003, 107).

The use of *res ipsa* also had ripples in other arenas of medical malpractice law, including the locality rule of care standards established more than fifty years prior in *Pike*. Expert witnesses from out of a physician's locality could now be called to testify because the publication of textbooks and articles in medical journals essentially expanded the concept of locality. Published writings increasingly began to be used in lieu of witnesses. National standards in medicine were emerging, facilitating the growth of malpractice filings.

Notwithstanding, the rhetoric and gnashing of teeth by organized medicine over the growth of medical malpractice during the first half of the twentieth century, the average

⁴⁷ *Poor Sisters of Saint Francis v. Long et. al.* 230 S.W. 2d. 659 (Tennessee, 1950).

⁴⁸ 25 Cal.2d. 486 (1944).

physician was relatively unconcerned. He may have grouched some about malpractice related threats or the cost of his professional liability insurance premiums, but in reality, his chances of being involved in a malpractice suit were still very low. An American Medical Association survey in 1957 showed that only 14% of the respondents had ever been threatened by a suit during their careers. To most physicians, the dragon of malpractice was still a myth.

The real issue for organized medicine, however, was the loss of control of medicine through expansions of legal doctrine, standardization of care, increasing public involvement in medical decision-making, and mounting patient advocacy by some physicians, i.e., a splintering in the conspiracy of silence. As 1960 approached, the issue of malpractice was being reframed, much to the chagrin of the power elites in medicine. For the first time, the focus of malpractice attention was being shifted from protection of the ‘guilty’ to the improvement of care, reduction of errors, enhanced physician education training, and better patient information and communication...all designed to reduce the incidence of malpractice litigation.

The watershed period for medical malpractice occurred in the 1960s as the rate of malpractice suits took a precipitous jump and finger-pointing turned into a national sport. The reality is that awareness of error and negligence had been elevated through media attention. Until the 1960s the press largely ignored the subject, and only extraordinary, high profile cases were reported upon. Now, society was in rebellion, with racial unrest, Vietnam War protests, and a general upheaval over the ‘establishment.’ Patients simply began to lose faith in medical institutions just as they were in government and social institutions. Physicians and hospitals responded in kind, charging patients with expecting miracles at every turn, failing to accept personal responsibility, and just plain greed. In short, the public lost substantial faith in the

motivations of medical institutions and the medical profession reacted by accusing patients of being ‘ungrateful’ (Hogan, 2003, 132-133).

Organized medicine tried to mute the onslaught of litigation by improving internal procedures, instituting medical review panels, quality assurance boards and better education and awareness training for physicians and allied medical professionals. The Courts, however, seemed to move in a different direction. Statutes of limitation were interpreted more liberally, charitable immunity was essentially abolished and, most importantly, the locality rule established in *Pike* was systematically dismantled.

In two cases occurring one year apart, courts in Washington⁴⁹ and Massachusetts⁵⁰ ruled that “...the time has come when the medical profession should no longer be balkanized by the application of varying geographic standards in malpractice cases...” and “...the standard of care is that established in an area coextensive with the medical and professional means available in those centers that are readily accessible for appropriate treatment of the patient.” To them, locality meant generally accepted access to national medical precepts. This opened the door to stricter standards for all facilities, regardless of physical locations. The message was clear, if a physician or institution cannot adequately care for a patient, they are obligated to get that patient to someone who can.

By the end of the 1960s, concerns about rising insurance rates and potential physician shortages caused the first panic in the medical profession, which induced Congress to inject itself into the fray. In fact, in 1969, the Ribicoff Committee reviewed hundreds of pages of court transcripts, legal and medical journal articles and testimony, and concluded that a ‘national crisis’ was at hand. Unfortunately, no statistical studies backed up their conclusions...the

⁴⁹ *Pederson v. Dumouchel* 43 P. 2d 973 (Washington 1967).

⁵⁰ *Brune v. Belinkoff* 235 N.E. 2d 793 (Massachusetts 1968).

Committee was simply awash in the same emotional wave as the combatants in the fray. Thus, the rush toward tort reform began.

CHAPTER 4

The Tort Reform Debate – A Legal, Medical or Economic Crisis?

Perhaps the most basic question in the tort reform debate is not whether the ineptitude of the civil justice system itself caused the tort reform movement but whether the crisis is economic rather than legal? The answer may be both. Clearly, the etiology of the ongoing cycles of medical malpractice crises was money, which invited close scrutiny of the inadequacies of the tort process. Because both the frequency and severity of malpractice cases escalated in the late 1960s and 1970s, malpractice insurance rates skyrocketed, and the dominant national insurance carrier, St. Paul Fire & Marine, ceased writing coverage in much of the United States. Other carriers followed, and since then the medical malpractice milieu has been consumed by advocacy for or against tort reform.

As indicated earlier, much of the debate over tort reform has been fueled by parochial anecdotes, distorted facts and media frenzy. If one were to listen to all the rhetoric, it would appear that medical malpractice filings have flooded the courts in the past couple of decades, and that compensation awards have grown so large that the civil justice system is about to implode. The data are contradictory. Some scholars have found little empirical evidence that the tort system has experienced either an explosion in numbers of claims or a burgeoning in jury awards (Eaton, Talarico & Dunn, 2000; Merritt & Barry, 1999; Saks, 1992). Others contend that while claims frequency may have moderated, payouts mushroomed in the 1990s (Thorpe, 2004; Smarr, 2003; Insurance Information Institute, 2003). This lack of consensus perpetuates the perception of a crisis, keeping tort reform on the political front-burner.

The Crisis...Legal, Medical or Economic?

Data provided to the Bureau of Justice Statistics concerning tort trials in the Nation's seventy-five largest counties showed that medical malpractice litigation occupied approximately 15% of civil court dockets and represented more than 26% of court awards⁵¹ in 2001 (Cohen, 2004). While the volume of medical malpractice activity may not be excessive, the economic impact is considerable. In fact, in that same year, the total cost of the medical malpractice arena, which includes malpractice insurance premiums, claimants' attorney fees, the cost of claims defense, and the added expense of defensive medicine (Mello, 2001), was estimated to be more than twenty-two billion dollars. Further, a comprehensive economic analysis of tort system related costs concluded that the total impact of the system on the United States economy now exceeds eight hundred and sixty-five billion dollars per year, which is equivalent to an annual "tort tax" of \$9,227 for a family of four. According to the authors of the study, defensive medicine alone contributes one hundred and twenty-four billion dollars to this total (McQuillan and Abramyan, 2008), more than six times the estimate eight years earlier.

While it is extremely difficult to put a firm price tag on the costs of medical malpractice litigation, the implication is clear. The system is expensive, inefficient and burdensome. In a preview article to their study, McQuillan and Abramyan (2007, A18) concluded by posing and answering the following question: "... if you're wondering who the victims are of a tort system out of control, the answer today: almost everyone."

In addition to these substantial economic considerations, there is also a tremendous emotional aura that surrounds medical malpractice cases because of the effect this kind of litigation has on both the plaintiff and defendant. Typically, the dispute between the parties is

⁵¹ Payout figures do not include settlements reached without court adjudication.

exacerbated by egregious harm to life and limb. Furthermore, there is potential reputational stain on physicians, hospitals, and medical and pharmaceutical suppliers and a negative effect on access to medical services. Another critical factor is the constantly rising rates of professional liability insurance, although many observers argue that the crisis has less to do with litigation than it does with general economic cycles, insurance carrier investment performance, and industry profitability (Bovbjerg & Bartow, 2003; Thorpe, 2004; Darr, 2004a; Studdert, Mello & Brennan, 2004; Americans for Tort Reform, 2004).

While there are many forces that influence the acuity of a medical malpractice crisis, the primary driver of the perpetual cycle⁵² of unrest certainly appears to be recurring spikes in professional liability insurance rates (Posner, 1986; Danzon, Epstein & Johnson, 2004; Studdert, Mello & Brennan, 2004; Thorpe, 2004; Lloyd, 2005). The first signs of anxiety among health care providers occurred when malpractice insurance premium increases averaged 15.9% per year for the four year period between 1968 and 1971.

In response, the first meaningful wave of reforms came from 1975 – 1977 when premium increases were 26.2%, 26.5% and 10.2% respectively. Whether or not cause-and-effect can be established, something meaningful happened because the next four years saw average increases of only 1.83%. Alarm among the medical establishment again surfaced when insurance premiums abruptly jumped by 13.2%, 56.0%, 26.1% and 14.7% from 1984 – 1987, followed by substantially lower increases of .6%, 6.2%, and a decrease of 6.2%, in the following three year period (Insurance Information Institute Factbook, 1966 – 1992 editions). The latest crisis cycle began when insurance premiums again rose precipitously in 2000. From 1995 through 1999, malpractice insurance premium increases averaged 1.6%, with two years actually showing

⁵² Cycle 1: 1975-1977 – Cycle 2: 1984-1986 – Cycle 3: 2002-2006.

declines (Insurance Information Institute Factbook, 2004). Rates then began an upward swell in 2000 and 2001 with increases of 10.6% and 9.6%, respectively, then surged upward by 19.9% in 2002, followed by an increase of 16.3% in 2003⁵³ (Insurance Information Institute, 2006).

The tort reform debate had cooled slightly in the past three years because medical malpractice insurance premiums actually declined by 6.6% in 2007 and 5.7% in 2008, further obfuscating the issue (Hunter, Cassell-Stiga & Doroshov, 2009). However, President Obama's recent healthcare reform initiatives have re-focused the debate. Republicans in Congress insist that the delivery/financing system is fine, and that the real issues are the costs and consequences of professional liability insurance and defensive medicine. Accordingly, one must conclude that insurance company economics are a major aspect of the tort reform debate.

The Driver...Medical Mistakes or Insurance Company Economics?

While an in depth examination of the insurance industry is beyond the scope of this paper, assessing the true need for tort reform requires at least a cursory understanding of why medical malpractice premiums spiked during the aforementioned reform cycles. Have premium rates been driven by general economic conditions, changes in the incidence of medical injuries, sudden escalations in the number of malpractice case filings, court judgments, and/or insurance carrier business strategies? Although there continues to be political debate over the role of each of these factors, substantial evidence exists that the natural insurance cycle is the major stimulus of premium increases.

General economic conditions, as measured by the overall inflation rate and the performance of the U.S. stock markets, are meaningful influences on insurance rates. The

⁵³ It should be noted that the medical malpractice data contained in the 2004 Factbook was revised upward for years 1999-2002 in a report shown on their web site in June, 2006. The changes reflect the fluid nature collecting data from many disparate insurance sources. While exact percentage changes may be difficult to verify, the point is adequately illustrated that substantial growth in insurance premiums ignited a third 'malpractice crisis'.

picture these indicators paint during the three malpractice crisis cycles is far from clear, however. For most of the 1960s, the overall annual inflation rate in the United States was less than 1.5%. From 1968 through 1971 it jumped to an annual average of 4.97%; inflation then moderated slightly before a precipitous rise of 11.09% in 1974 and 9.20% in 1975. During this same period, the Standard & Poor 500 performance was somewhat erratic, culminating with losses of 17.37% in 1974 and 29.72% in 1975 (InflationData.com, 2009; EFMoody.com, 2006). Looking at these patterns, one might reasonably infer that general economic conditions played some role in the major increases in malpractice rates that sparked the first crisis cycle.

However, while the annual inflation rate was declining in the early to mid 1980s to roughly 3%, malpractice rates skyrocketed. When inflation rates again increased in the late 1980s, malpractice premium increases were near their nadir for the decade. At the same time, the stock market showed consistent gains, including 26.33% and 14.62% in 1985 and 1986 (InflationData.com, 2009; EFMoody.com, 2006). General economic conditions then did not seem to play a role in the second cycle.

Cycle three presents a mixed picture. While the inflation rate since 2000 has been extremely low, averaging 2.84%, the Standard & Poor 500 Index has seen one of its worst performance periods in stock market history. The first three years of the decade saw losses of 10.14%, 13.04% and 23.37%; at the same time, malpractice insurance premium increases averaged well into the double digits (InflationData.com, 2009; CNNMoney.com, 2009). These market losses clearly had a negative effect on insurance company bottom-lines and exerted some influence on rate hikes in that period (Thorpe, 2004). The market then rebounded during the next four years until the precipitous market crash of 2008, where the Standard and Poor Index declined by 38.47% (1Stock1.com, 2009). During this five year stretch, medical malpractice

premium increases moderated significantly from an annual rate of approximately 12% to the actual decreases in 2007 and 2008. Based on the apparent link between the financial markets and insurance company profitability, the 2008 market crash seems to portend higher malpractice rates in 2010 and beyond.

In the early 1970s, a federal commission appointed to examine the causes of the first malpractice crisis estimated that one malpractice claim was filed for every 226,000 patient visits to a physician; a rate so low it approaches infinity. At the same time, an insurance industry report claimed that only 46% of medical malpractice claims were meritorious (Darr, 2004a). By any measure, this would seem to demonstrate that the incidence of medical negligence was insignificant. However, the incidence of negligent injury has not yet been thoroughly tested empirically because of the complexity of gathering measurable and meaningful data. Consequently, and not surprisingly, the evidence that has been posited is contradictory.

Early studies conducted in California (California Medical Association, 1977) and New York (Weiler, 1991); and a later study in Colorado and Utah (Studdert, et. al.2000) seem to suggest that the trends in rates of negligent injuries in hospitals has not changed in four decades, remaining below 1% of hospital admissions (Thorpe, 2004). On the other side of the issue is the report of the *Institute of Medicine* in 1999 that medical mistakes resulted in between 44,000 and 98,000 deaths in U.S. hospitals annually in the 1990s. This, of course, raised the salience of the issue among the media and public, but there is simply no way to adequately measure this against earlier decades. We do know that more attention has been directed toward quantifying medical mishaps over the past thirty years, but identifying the number and severity of true negligent injuries still remains a mystery. Given the ambiguities and lack of reliability of measures of

medical injuries, it seems unlikely that they can be linked to the rise in malpractice insurance premiums during any of the crisis cycles.

Tracking the incidence of medical malpractice claims is easier than pinpointing the number of medical injuries. Data about claims incidence and severity have generally come from special reports, insurance company closed case files, and the National Practitioner Data Bank. Synthesized data from these sources and the American Medical Association show that in 1970 one in seven physicians could expect to be sued at some time during their medical careers. By the mid 1980s, one in seven physicians could expect to be sued *each year*. The incidence rate has declined slightly since its apex in 1984, but as of 2002, it still reflects more than a four-fold increase since 1970 (Bovbjerg & Bartow, 2003⁵⁴). Interestingly, the claims trend line tracks very closely with cycles one and two of the ongoing medical malpractice crisis, indicating some relationship to the premium increases experienced in the mid 1970s and mid 1980s.

Claims severity data supplied by the Physician Insurers Association of America⁵⁵ for the last two decades show that mean payouts more than doubled⁵⁶ and median payouts more than tripled⁵⁷ from 1988 to 2001, with significant spikes late in the 1990s (Bovbjerg & Bartow, 2003; Danzon, Epstein & Johnson, 2004). Without belaboring the point, it seems reasonable to infer that claims volume and economics are related to premium increases in the third malpractice crisis cycle.

It must be remembered, however, that insurance carriers, be they commercial or physician-owned enterprises, are in the business of managing risk. Accordingly, they are driven

⁵⁴ Exhibits 14, 15 and 16 on page 26-28 of The Project on Medical Liability in Pennsylvania Report.

⁵⁵ The PIAA is an association of doctor-owned or operated insurance companies that was formed in 1977 to supplant commercial insurance carriers who either left selected states or significantly altered their claims processing procedures to the detriment of insured physicians. The PIAA now insures more than 60% of private practice physicians in the United States (PIAA, 2006).

⁵⁶ Mean – from \$145,000 to \$315,000 per award.

⁵⁷ Median – from \$50,000 to \$175,000 per award.

by financial performance. Notwithstanding their goodwill mottos and service rhetoric, these enterprises cannot survive without being sound actuarially, and business decisions and strategies are formulated on related risk projections. Accordingly, premiums are based on forecasts of revenues generated by premiums and investments, netted against operating and claims costs (Thorpe, 2004; Danzon, Epstein & Johnson, 2004). These projections often do not match reality, thus insurance carriers must make strategic adjustments in order to maintain profitability targets.

When revenues fall short of expectations, either because of a decline in premium revenues or poor investment performance, rates are increased to maintain financial viability. Likewise, if administrative costs, claims payments, or adjudication expenses exceed projections, rates are increased. Thus, the combination of these exogenous shocks to revenue and/or expenses affects available capital and carrier capacity and, consequently, premium rates. The ongoing economic balancing is typically referred to as the insurance cycle, making the process both long-term and inexact (Danzon, Epstein & Johnson, 2004).

While virtually everyone agrees that premiums must rise when risk exposure increases, there has been much criticism of the reporting and interpretation of insurance industry data regarding medical malpractice losses. Critics claim that the industry deliberately misleads or distorts loss ratios to justify rate increases. In fact, a study of medical malpractice claims reports by the insurance industry from the 1986 through 1994 seems to support that claim. The study showed that initial loss figures reported for each year of the survey period were revised downward ten years later based on actual claims paid. The lowest revision was 24.7% for 1994 and the highest revision was 57.7% for 1988 (The Foundation for Taxpayer and Consumer Rights, 2005). The study authors contend that:

...In view of this data, there is no reason to expect that insurers' incurred loss estimates for 2001-2004 – and thus their rates for 2002-2005 – are accurate. To the contrary, we now have certain evidence that the malpractice rates insurers charged during the last insurance crisis and the years following it were grossly excessive – by an average of between 40% (for claims-made coverage) and 49% (for occurrence coverage). We should expect to discover ten years from now that the incurred loss estimates medical malpractice insurers are reporting today, and the rates that they are charging, have been similarly inflated (The Foundation for Taxpayer and Consumer Rights, 2005, 16).

There appears to be no doubt that the fluctuating insurance cycles are related to the malpractice crisis. Does an insurance crisis alone, though, justify the overhaul of the civil justice system or the creation of an alternative system for adjudicating medical mishaps? In and of itself, no. However, the secondary effects⁵⁸ of an insurance industry crisis on the healthcare system probably do demand some action. While reform of the insurance industry might seem to be the appropriate solution, it must be remembered that the intensity of the economic crisis varies substantially from state to state, and there is less pressure and political will to challenge the insurance industry than the legal system.

The insurance industry blames attorney behavior and unreasonable juries for rising tort costs, citing a Tillinghast study that indicates "...the U.S. tort system is the most expensive in the industrialized world"⁵⁹ (Insurance Information Institute, 2003; Mankiw, 2005). Organized medicine seconds the indictment of the legal profession for creating the crisis, and the combined hue and cry for medical malpractice tort reform has clearly been heard by lawmakers and the

⁵⁸ Secondary effects include the withdrawal of insurance carriers from some states, physician practice curtailments, early retirements, etc. These actions reduce patient access to care, which certainly gets the attention of lawmakers.

⁵⁹ In 2002, U.S. tort system costs were set at \$233 billion or more than 2% of the nation's GDP; up from 1.3% of GDP in 1970 and .6% in 1950. In contrast, Canada, Japan and France each spend less than half of their GDP on tort costs.

public. While the question of whether tort system reform was and is really necessary may be a debatable issue to some, the argument is clearly a moot issue for state decision-makers. Long ago most states concluded that action was imperative; consequently, reforms have been rolling out of state legislatures for more than three decades. The real question is not whether tort reform has been necessary, but what effect have they had on insurance premiums?

What Refinements Have Been Implemented and What Do We Know About Their Effects?

In May, 2006, *The Synthesis Project* of the Robert Wood Johnson Foundation issued a Report entitled “Medical Malpractice: Impact of the Crisis and Effect of State Tort Reforms.” The author, Michelle Mello⁶⁰, stated in the introduction that “states...have enacted a variety of reforms to prevent or temper malpractice crises, but there is a paucity of reliable information available to policy-makers about the effects of these reforms and the impact of the malpractice crisis on health care delivery.” She went on to observe that “while a voluminous number of reports have been produced, most are not based on rigorous analysis (Mello, 2006, 1).”

The plethora of tort reforms that have been enacted by state legislatures include thirty-eight states that have modified their joint-and-several liability rules to limit the amount of compensation paid to plaintiffs and apportion assessments based on a formula for attributing fault to the defendants in the case; twenty-five states have adjusted their collateral source rules to allow disclosures to the jury of all sources of compensation to the plaintiff; twenty-three states have imposed limits on non-economic losses, ranging from \$250,000 to \$750,000; and thirty-four states have imposed limits or have banned punitive damages altogether in medical

⁶⁰ Michelle Mello is Associate Professor of Health Policy and Law in the Department of Health Policy and Management at the Harvard School of Public Health. She holds a Juris Doctorate from Yale Law School (2000); a Ph.D in Health Policy and Administration from the University of North Carolina (1999); a Master of Philosophy in Comparative Social Research from Oxford University (1995); and a B.A. in Political Science and Applied Ethics from Stanford University (1993). She has written more than sixty articles and book chapters on medical malpractice, tort litigation and legal ethics; was the recipient of the 2006 Alice S. Hersh New Investigator Award from AcademyHealth for outstanding promise in the field of health services research.

malpractice cases (Congressional Budget Office, 2004). Mello was certainly correct; much effort has been expended by states to curb what they see as a major economic and social welfare issue.

The purpose of *Research Synthesis Report # 10* was to ferret out those few empirical studies that present trustworthy findings on the effects of these malpractice tort reforms and present a meaningful summary of those studies for use by policy-makers. This *Report* furnished the basis of my analysis below of the impact of state tort reform measures on health care delivery and the civil justice system.

While there was a smattering of reforms in the late 1960s⁶¹, the first meaningful ripple of medical malpractice reforms came in 1971 when Idaho, Montana, Nevada and Washington all enacted mild reforms. California became the epicenter of the reform movement in 1975 when some physician specialties saw professional liability insurance premium increases of more than 400%, creating fears that many physicians would retire, curtail their practices, or move to other states (Lloyd, 1983, 520). Accordingly, California's passage of the first extensive tort reform package⁶² in 1975 sparked a wave of reforms that saw twenty-five other states pass new tort legislation in the next four years.

During the first crisis cycle, a majority of states took the most politically palatable course of action, opting to make alterations that were relatively non-intrusive on the civil justice process. Typical early reforms included reductions in statutes of limitation and repose, establishment of pre-trial optional screening panels, contingency fee limits for plaintiff attorneys, and encouragement of periodic payments to victims of medical negligence as opposed to caps on

⁶¹ North Carolina, California and Connecticut made changes to statutes of limitations or frivolous claims rules in 1967, 1968 and 1969.

⁶² California's first comprehensive package of medical malpractice specific reforms in 1975 addressed statutes of limitations, prior notice of suit rules, collateral source benefit rules, periodic award payments and attorney fee limits.

damages, limits on collateral source rules or the abolition of joint-and-several liability. More severe measures came later in the 1980s during the second crisis cycle. The emphasis during the first two crisis cycles, then, was on conventional reforms that addressed economic concerns alone rather than broader system reforms that might lead to both economic efficiency and health care delivery improvements.

After the first crisis cycle, initial research was directed at determining if tort reforms had a moderating effect on either the frequency of medical malpractice claims or the severity of the awards. Patricia Danzon⁶³ was a pathbreaker in this effort with her two studies published in 1984 and 1986. Her 1984 study examined data involving malpractice insurance premium rates and closed insurance claims from twenty-six insurers⁶⁴ in 1970 and 1975 – 1978, and measured them against a series of reforms enacted during the nine year period. She controlled for physician density, per capita income, population age, state urbanization, number of lawyers per capita, and two other lines of insurance – owner’s, landlords and tenants liability and manufacturers and contractors liability.

While recognizing that her study could not address the long term effects of these limited tort reforms, Danzon did find that states that had enacted statutes of limitations reforms during the study period had a statistically significant reduction in claims payouts. While there was a positive correlation with reduced frequency, it was not statistically significant. States that had enacted damage caps effective on January 1, 1975 had an average decrease in claims payouts of 19% by 1977, but claims frequency appeared unaffected. Mandated collateral source offsets during the same period correlated with a 50% decrease in awards. Other results indicated that

⁶³ Patricia Danzon is Chair of the Department of Health Care Systems for the Wharton School at the University of Pennsylvania. She has been at the University of Pennsylvania since 1985, and has been a prolific researcher and much sought after consultant in the areas of pharmaceutical and insurance regulation, and medical malpractice for more than twenty years. Her education includes a PhD. and MA from the University of Chicago.

⁶⁴ These insurers represented 90% of the insurance market at the time.

periodic payments, pre-screening panels and attorney fee limits had no effect on either the frequency of claims or the amount of awards.

Danzon's subsequent study came during the height of the second malpractice crisis cycle in 1986, and was precipitated by indications that the severity and frequency of claims, after a lull in the late 1970s, had again escalated at an alarming rate in the early 1980s. St. Paul Fire and Marine Insurance Company⁶⁵ reported that the average severity per claim had increased from \$27,408 in 1979 to \$53,482 in 1983, a change of approximately 95%. At the same time, average jury awards had grown from \$484,726 in 1980 to \$954,858 in 1984. In addition, claims frequency rose by an annual rate of 10% from 1975 through 1984, with higher increases in the 1980s than the 1970s.

Danzon's second study represented an update of her 1984 study and measured the effects of several types of reform – attorney fee limits, arbitration, collateral source offset (suggested and mandatory), damage caps, and pre-trial screening panels (voluntary and mandatory) – on the frequency and severity of claims for all years from 1975 – 1984. Her control variables were altered to include the effects of time, risk exposure of physicians, non-tort disciplinary procedures by medical authorities, urbanization, per capita income, state population turnover, population age, the number of attorneys practicing in each state, and dummy variables that represented a hand full of selected high risk states⁶⁶.

The results of Danzon's 1986 study largely mirrored her earlier findings but did provide some additional insights. Caps on non-economic damages were linked to both a reduction in claims severity and collateral source offsets. In addition, states with collateral source offsets

⁶⁵ St. Paul Fire and Marine Ins. Co. was the dominant malpractice insurance carrier until the early 1980s when the 'bedpan' mutuals were formed in many states by physicians and many state medical societies. St. Paul remains a major force in the industry.

⁶⁶ Arizona, California, Illinois, Maryland, New Jersey and New York.

experienced 14% fewer claims than those states that maintained collateral source protections. Findings from the first study regarding the lack of effect of attorney fee limitations and pre-trial screenings were confirmed. Two other important observations were also made. During the study period, malpractice claims severity rose at almost twice the rate of the Consumer Price Index, and juries in highly urbanized states typically granted higher awards than those in more rural states.

Frank Sloan (1985) later tested the effects of four types of legislative actions on professional liability insurance premiums by state for general practitioners, ophthalmologists and orthopedic surgeons. His time period concentrated on the first crisis cycle, from 1974 to 1978. The reform variables included damage caps, statutes of limitation/repose, collateral source offsets and pre-trial screening panels. Empirical results from Sloan's 1985 study led him to conclude that there was "... no indication that individual state legislative actions, or actions taken collectively, have had their intended effects on premiums (Sloan, 1985, 643)." His interpretation of the results was that it was possible that the frequency and severity of claims were only weakly related to insurance premiums, or that the data available for the study period were not sufficient to establish true cause and effect.

A secondary finding was that higher numbers of attorneys per capita might very well be a factor in malpractice insurance premium increases. The model, minus the dummy variables for each year, indicated an almost perfect correlation with premium increases; significant at the .01 level. However, introduction of the year variables negated the significance of the previous model. It could be, then, that a natural time diffusion effect clouded the impact of reform legislation during the study period.

The major criticisms of Sloan's 1985 study were that the examination period was too short to be meaningful and that the damage caps variable did not separate out types and amounts of caps enacted. Sloan, Mergenhagen and Bovbjerg conducted a follow-up study in 1989, in which they changed the dependent variable from malpractice insurance premiums to the effects of those same reforms on claims payouts. That study is considered to have yielded valid and meaning results.

While the major focus of the 1989 Sloan, et al. research was the effect of reforms on the probability of a claims payment and the amount and speed of those payments, important findings relating to the efficacy of reforms were obtained. The follow-up study examined roughly 1700 closed claims per year for five separate years, as reported by the National Association of Insurance Commissioners for 1975 – 1978, and the U.S. General Accounting Office for 1984. The results provided additional empirical evidence that some reforms reduce the severity of awards while others do not. The study showed that states with non-economic damage caps had awards of 31% less than states without caps. It also demonstrated a moderating effect on awards for attorney fee limits. These results were consistent with the Danzon studies.

Sloan's results, however, contradicted Danzon's studies regarding statutes of limitation and repose. While there appeared to be a difference between states with ten and two year statutes of limitations, the result was not statistically significant. Sloan, et al. reasoned that statutes of limitations are aimed at the frequency, not the severity of claims; so they did not opine that statutes of limitation have no effect on moderating malpractice insurance costs. Finally, the 1989 Sloan research seemed to support the lack of efficacy of pre-trial screening panels and periodic payment options, while contradicting Danzon's positive finding regarding collateral source offsets. To this point, the empirical research proved somewhat contradictory.

While the debate over tort reform waned somewhat in the late 1980s and early 1990s because premium rate increases moderated, researchers continued to examine the effects of tort reforms and other influences on medical malpractice insurance premiums. One study essentially extended the time frame from a five year period to a thirteen year period, which ran from 1974 – 1986. This study was the first research to compare the effects of tort reforms on three critical elements of the medical malpractice arena by looking at how reforms affected malpractice premiums, claims frequency and claims severity. The study provided a valuable contribution to the body of knowledge because it broadened the number and type of variables examined and was the first assessment of the impact of tort reforms that spanned most of the first and second crisis cycles. (Zuckerman, Bovbjerg and Sloan, 1990).

Where Sloan's studies included data for three medical and surgical specialties, the Zuckerman et al. research encompassed five specialties – obstetrics & gynecology, orthopedic surgery, general surgery, anesthesiology and general practice. Reform variables included statutes of limitation, attorney fee limitations, pre-trial screening panels, arbitration procedures, damage caps, collateral source offsets, and court cost awards for losing parties in malpractice cases. In addition, the researchers included eighteen other explanatory and control variables related to the influence of insurance industry competition, investment performance, rate regulations, global economic conditions and population characteristics.

The Zuckerman et al. study contradicted the earlier Danzon and Sloan findings regarding the effects of damage caps on claims payouts. Specifically, they found that damage caps had no effect on either claims payouts or claims frequency, although caps did, in fact, correlate with reduced insurance premiums. Statutes of limitations reforms were found to have a moderating effect on claims frequency as well as malpractice premiums, but exhibited no effect on claims

payouts. This confirmed Sloan's 1989 finding but challenged Danzon's 1984 finding regarding the efficacy of statutes of limitation reforms on payouts. Claims payouts, claims frequency and insurance premiums were found to be unaffected by attorney fee limits, collateral source offsets or pretrial screening panels.

Perhaps the major implication of the Zuckerman et al. study was the suspicion that a wide variety of factors affected insurance premiums during the study period. These included per capita income, population mobility, surgeries per 1K population, physicians per 1K population, the number of elderly in a state, and requiring prior rate approval by the state. Overall, the Zuckerman study was a strong one, but it has been criticized for the inclusion of too many variables in the model, perhaps adversely affecting the ability of the model to reveal important effects (Mello, 2006).

Blackmon and Zeckhauser (1991) were also at the forefront of research about the effects of the second cycle of tort reform legislation passed in 1986. Their study examined the impact of damage caps, statutes of limitation reductions, elimination of joint-and-several liability, attorney fee limits, collateral source offsets and periodic payments on both insurance premiums and losses. State level premium and loss data were gathered for general liability, medical malpractice, and automobile insurance from *A. M. Best* publications for the years 1985-1988. This represented a period one year prior to the passage of reforms and three years afterward.

Blackmon and Zeckhauser (1991) estimated that imposing caps on damages reduced malpractice insurance losses by 44.3%. While the study demonstrated a beneficial effect on losses of 10.6% for joint-and-several liability modifications, the result was not statistically

significant. None of the other reforms produced a meaningful result on losses when control variables were added to the model.

According to the data reported in the Blackmon & Zeckhauser model, damage caps reform also produced a statistically significant reduction in professional liability premiums of 43.7%; although in *Synthesis Report # 10* Mello (2006) concluded that there was no meaningful effect on premiums. The Blackmon & Zeckhauser model also showed a 24.4% reduction in premiums related to joint-and-several liability reforms, significant at the .90 level; while Mello indicated that this result *was* meaningful. As with claims payouts, the results for other reforms appeared inconsistent and nonsensical.

Blackmon and Zeckhauser participated in a later study with Viscusi and Born (Viscusi et al., 1993) in which they considered whether or not particular tort reforms enacted during three years in the mid 1980s had any effect on claims paid by insurance companies or premiums paid by insureds in the 1985-1988 study period. Their findings suggested a more pronounced effect on general liability lines than medical malpractice insurance.

The Viscusi et al. study essentially extended the Blackmon & Zeckhauser research by adding reforms for 1985 and 1987 to the original 1986 data by considering the effects of insurance rate regulations imposed by states, and through re-specification of the econometric measures used as controls in the model. The reforms examined remained the same as the 1991 study.

Viscusi et al. (1993) found no significant relationship between the imposition of damage caps and either claims payouts or malpractice insurance premiums. They did find that joint-and-several liability modifications reduced insurance premiums but had no effect on losses. They also found that insurance rate regulation variables had little effect on professional liability

insurance premiums. Interestingly, the researchers expressed puzzlement about the pattern of results from their study because “...reforms intended to constrain costs and enhance profitability did neither. Yet these results suggest that premiums were dampened by the introduction of a reform measure (Viscusi et al., 182).” They surmised that there might truly be a spurious relationship between reforms and losses/premiums, that insurance company action might have been taken as a result of preconceived expectations, or that there was significant rationing of coverage by some insurance carriers. Overall, the study added little to the body of knowledge because of the recurrent problem with control variables and premium measurement indicators⁶⁷.

As one might deduce, the salience of the tort reform issue declined when the level of crisis subsided in the early 1990s and physician-owned insurance carriers began having a controlling effect on the competitive marketplace. Accordingly, there was a hiatus in research until the third crisis cycle emerged in 2002. The reappearance of the malpractice crisis led to new studies by Danzon (2004), Thorpe (2004), and Viscusi & Born (2005), all of whom initiated an examination of the long-term effects of selected tort reforms on claims frequency, claims severity and malpractice insurance premiums. These studies took a fresh look at both old and new data for reforms enacted during and after the second crisis cycle.

In his 2004 study, Thorpe continued to examine the long-term effects of damage caps, attenuation of joint and several liability, attorney contingency fee limits and collateral source offsets on professional liability insurance premiums by state for the period of 1985 – 2001. His set of control variables included attorneys per capita, per capita income, state urbanization

⁶⁷ The study used total premiums rather than per capita premiums, which could have eliminated the concern over spuriousness and rationing.

percentage, unemployment rate, the number of welfare recipients per 100K population, surgical procedures per 100K population, and a measure of competition among carriers⁶⁸.

Thorpe found that states with damage caps had total earned premiums of 17.1% less than states without restricted awards. Likewise, premiums in those same states were 12.7% lower when the dependent variable changed from total earned premiums to earned premiums per physician. None of the other three tested reforms produced a statistically significant effect on malpractice insurance premiums, although discretionary collateral offset reforms did suggest a 13.3% decline ($p \leq .10$) in premium levels. Another interesting finding from the study was that premiums seemed to increase as industry competition declined.

Again, in 2004, Danzon, Epstein & Johnson conducted a highly sophisticated study designed as an exploration of the effects of marketplace operations⁶⁹, carrier strategies and overall dynamics of the insurance industry on medical malpractice insurance rates. A by-product of the study provided information on the enduring impact of economic and non-economic damage caps, modification of joint-and-several liability rules, and collateral source offsets on medical malpractice premiums from 1994 – 2003. Related results confirmed Danzon's earlier studies that suggested that damage caps of \$500,000 or less do exert a slight moderating effect on insurance premiums. In addition, the research showed that elimination of joint-and-several liability reduced premiums while collateral source offsets had no statistically significant effect.

The most recent published assessment of the effects of damage caps on claims frequency, loss ratios and insurance premiums came in 2005, when Viscusi and Born examined claims and premiums data provided by the National Association of Insurance Commissioners for the years

⁶⁸ Thorpe used a Hirschman-Herfindahl Index (HHI) to measure competition. HHI is a commonly used maximum likelihood method of measuring market concentration. It is calculated by squaring the market share of each firm in an industry, and summing the results. The Index can range from almost zero to a maximum of 10,000. 10,000 would indicate a total monopoly in the industry.

⁶⁹ A Hirschman-Herfindahl Index was also utilized in the Danzon et al. model.

1984 – 1991. To no one’s surprise, reform efforts were found to closely follow spikes in insurance company losses, which precipitated rate increases. The major findings of the study, however, were that the disallowance of punitive damages and limits on non-economic damages do significantly reduce medical malpractice premiums.

Viscusi & Born observed that “...liability reforms reduce losses, lower premiums, and enhance insurer profitability (Viscusi & Born, 2005, 41.” Perhaps without realizing it, these scholars succinctly articulated the most accurate statement regarding tort refinements that can be made. While every system adjustment has not been effective, the consensus of research over the past three decades suggests that conventional reforms have had some effect on the economic factors that undergird the tort reform debate. What has yet to be determined, however, is if and when real system reforms will ever be initiated, and whether or not they will radically affect the future structure, equity or deterrence elements of the civil justice system.

In summary, empirical research suggests that damage caps improve insurance carrier economics by lessening claims expenses, leading to a moderation of malpractice insurance premiums for medical providers. There is also some evidence to support the contention that reform of joint-and-several liability exerts downward pressure on insurance premiums, although the effects of this type of reform on claims payouts and claims frequency have not yet been fully vetted. Collateral source offsets appear to reduce claims severity and frequency, although they seem to have had no effect in reducing malpractice premiums. The evidence concerning the influence of statutes of limitations reform is mixed; it looks as if this type of reform reduces the frequency of claims and exerts a moderating effect on insurance premiums but has no confirmable effect on claims payouts. Other conventional reforms appear to have had no measurable impact on claims frequency, claims severity, or insurance premiums.

Frankly, it appears that research on conventional tort refinements has been exhausted; with little or no more to be gained that will quell the tort reform debate. While economic pressures have provided a great deal of the fuel for debate, a more sophisticated research path is needed, which will shift the emphasis from medical malpractice premium rates to how adjudication of claims is affected by simple tort refinements as compared to major reforms. In the meantime, system critics continue to argue that system refinement is only a Band-Aid for improving the legal process for adjudicating medical malpractice claims. They continue to call for full system overhaul, and specialized health courts appear to be a major emphasis in their reform strategy. A comprehensive review of both refinement strategies and proposed reform vehicles follows in Chapter 5.

CHAPTER 5

Tort Refinement Strategies and Their Impact

Since the first insurance crisis thirty-five years ago, reformers have promoted a veritable smorgasbord of vehicles from which lawmakers can choose to rein in the cost and impact of medical malpractice litigation. Some are perhaps more symbolic than substantive, but reformers have not been choosy. It seems that their strategists believed that once the trigger of tort reform has been pulled, subsequent reforms are easier to achieve.

These reformers have posited that either streamlining or generally overhauling the adjudication process would ease economic stress, improve efficiency, reduce the disruption that occurs to everyday services, and lessen the ‘legal fear’ of those who manufacture goods or render professional services; all while substantially improving the chances of sensible and lucid outcomes and fair compensation for victims (Taylor, et. al., 2003). Their proposals can be classified as either: (1) conventional tort reforms (refinements) or (2) overall system reforms (replacement); with conventional reform measures being both more prevalent and more politically palatable. System reforms are more radical, and clearly seem much less viable because they involve fundamental changes in thinking as well as process (Studdert, Mello & Brennan, 2004).

The conventional medical malpractice tort reforms (refinements) described in the following section fall into three general categories: (1) limitations on access to the courts (2) modification of liability rules, or (3) damages reform (Studdert, Mello & Brennan, 2004).

Limitations on access to the courts involve reductions in statutes of limitation/repose and prescreening panels. Reductions in either statutes of limitation or repose shrink the window during which a medical mishap can be litigated, resulting in fewer discoveries, less malpractice filings, and lower cost. Pre-screening panels are intended to root out frivolous claims or bring parties together more quickly, leading to better communication between the parties and facilitating earlier settlement of claims. Liability rule modifications are also intended to reduce the frequency of claims through the elimination of the *res ipsa loquitur* principle, the imposition of higher standards for expert witnesses and breaches of informed consent, and repeal of joint-and-several liability laws.

The obvious purpose of damages reform is to affect the manner and amount of compensation that can be paid for medical malpractice claims. These types of reforms are varied, with some intended to limit payments for non-economic damages or reduce contingency fees for plaintiff attorneys; and others are aimed at mandating collateral source income offsets to awards or requiring periodic payments rather than lump sum payouts to victims. Non-economic damage caps have represented the most common and potent weapon in the reduction in payouts (Sharkey, 2005). The aim of the first generation of conventional reforms in the 1970s was to reduce the frequency and severity of malpractice claims; the second generation refinements of the 1980s and 1990s were directed toward streamlining case adjudication and compensation mechanisms (Fraser, 2001). Below is a summary of some of the more prominent reform strategies that have been attempted, their advantages, disadvantages, and perceived impact on the malpractice litigation landscape.

Mediation and Arbitration

One of the first approaches to medical malpractice reform sought to remove medical claims from the courts through alternative dispute resolution. A first step was simply for the parties to meet face-to-face and engage in ‘principled negotiations,’ whereby the parties could amicably discuss the patient’s complaints and arrive at a compromise settlement. A tried and true approach in the business community, it did not adapt particularly well to the medical setting because the parties are not truly equal contestants in the process, thus creating an unbalanced playing field. Physicians and other medical institutions have more information and resources available and injured parties just do not have faith in the negotiating process.

Mediation was another mechanism proposed by early reformers. Mediation is an extension of the negotiating process that employs an impartial third party to facilitate the negotiations and provide an unbiased view of events. Mediation has had some success in resolving malpractice claims, particularly in cases where miscommunication between the parties contributed to or caused the dispute. The mediation process allows the injured party to voice their complaints to the offending party, often resulting in acknowledgment of the error and even an apology in some cases (Fraser, 2001).

The major drawbacks of mediation are that (1) the process is entirely voluntary (2) it does not provide a mechanism for compelling the parties to reveal information that may be germane to the case, and (3) the results of the negotiation or mediator decision is not binding; the only power available to the mediator is what the disputants allow. Accordingly, mediation has not had a measurable impact on the medical malpractice landscape (Fraser, 2001).

Arbitration represents the next step above negotiation, and is the approach that most closely approximates the judicial setting. It is usually a mechanism that is agreed to in private

contracts prior to the rendering of services. The parties agree to submit their dispute to a single arbitrator or arbitration panel who hears evidence much in the same way as the court. The arbitrator then makes a decision on the issue, which is final except in cases of fraud, procedural error, or blatant arbitrator bias (Fraser, 2001).

Reformers have preferred arbitration to a judicial trial because it is less time consuming, simpler, and less expensive. The rules of evidence are less stringent and the proceedings are generally private. Another advantage is that an arbitrator or panel usually has unique technical skills or knowledge that enables him or her to better understand and evaluate the issues and communicate more effectively with the contestants than a typical judge (Fraser, 2001).

Drawbacks to arbitration are that (1) the defendant typically gives up some rights in the process (2) documentation is not as complete as in a pure judicial proceeding, and (3) the arbitrator is not required to explain the basis of his decision. Arbitration has proven to be a very useful process for medical malpractice dispute resolution over the last quarter of a century, but it remains underutilized (Fraser, 2001). While there has been no legislative reform requiring arbitration as a replacement for judicial tort proceedings, it is notable that the process has been endorsed by the American Bar Association (McMillon, 1994).

Pre-litigation Screening Panels

The pre-trial screening panel is an alternative dispute resolution process that was developed specifically for medical malpractice cases. This mechanism requires that injured parties submit their claims to a panel of ‘experts’, which may include physicians, attorneys, judges and/or laypersons. These panels typically evaluate the cases and issue an advisory opinion on the merits of the claim before the case can be submitted to the court for adjudication; although there are some states where the case goes to trial first and the court itself engages the

panel. In any event, the opinion must be obtained before a verdict can be rendered by the court (Fraser, 2001).

Approximately half of the states have enacted pre-litigation screening legislation since the mid 1970s; some of whom allow the panels to opine on the amount of damages that should be awarded. John Fraser, M.D. indicated in a report to the American Society of Pediatricians in 2001 that New Mexico, one of the first states to require pre-trial screening panels, has funneled more than 2,100 cases through these panels since 1962. The result has been a seventy-five percent reduction in the amount of cases that have gone to trial, mostly because of settlements that have occurred secondary to the findings of those panels (Fraser, 2001).

There is some evidence that low merit cases have been weeded out of the tort system through the use of pre-trial screening panels, although critics say it has clogged the system with frivolous claims. Others claim that because it introduces another layer in the legal process, it has prolonged many meritorious cases. True reformers also point at the pre-screening panel as a model for how specialized Health Courts could function, indicating that these ‘expert’ panels are far more knowledgeable and efficient than lay juries.

Limitations on Compensatory and Punitive Damages

Damages are the amount of money a court awards a plaintiff as recompense for the injury he or she has suffered at the hands of a physician or other health care provider. They fall into two broad categories: compensatory damages and punitive damages. Compensatory damages are made up of non-economic damages such as pain, suffering and anguish; and economic damages such as lost wages and medical expenses. Punitive damages are payments to plaintiffs for injuries they suffered when negligence is judged to be wanton or willful. In addition to

compensating the injured, punitive damages are intended to punish defendants for reckless or malicious behavior.

As indicated earlier, most of the early refinements centered on reducing the frequency and severity of medical malpractice claims. While not an effective tool in reducing the amount of claims filed, damage caps have represented perhaps the most potent weapon employed in the tort reform struggle in reducing the cost of medical malpractice and slowing the growth of professional liability insurance premiums. A study of twenty-four states that had instituted damage caps on one or more types of damages through 2001 showed that professional liability premiums were 17.1% lower than states without the caps; and these caps were associated with a 12% reduction in malpractice premiums in those capped states (Thorpe, 2004). Another study conducted in 2003 found that the overall amounts of compensatory damages had not been affected by caps because of what the researcher called the ‘crossover effect’; that is, when there are caps on non-economic damages, economic damage awards tend to be higher, and vice versa (Sharkey, 2005).

Statutes of Limitation

Statutes of limitations are laws that bar claims after a specified period of time, based on when an alleged injury occurred. The purpose of this kind of law is to require expeditious prosecution of known injuries in order to ensure that claims will be resolved while evidence is reasonably available and fresh, thus providing some predictability and finality to the tort system. Failure to bring an action within the specified time bars the claim forever, regardless of the validity of the claim. Statutes of limitation were instituted so that an allegedly negligent party does not have to defend himself against stale claims, where the facts in dispute may be forgotten, documents may be lost, or witnesses may have become unavailable.

Prior to 1975, many states had statutes of limitation that were as long as twenty-one years after the incident occurred (Paterson, 2002). This created a long tail of potential liability for physicians and other medical institutions, as well as insurance companies. These extended periods of uncertainty for insurance carriers exerted upward pressure on malpractice insurance premiums. As a result, many state legislatures amended their statutes of limitation to reduce the time frame for discovery and filing of a claim to much shorter periods.

Supporters of reduced time periods for filing aver that statutes of limitation (1) lessen anxiety and promote peace of mind for possible defendants (2) aid societal stability (3) reduce uncertainty and the cost associated with uncertainty, and (4) preserves the integrity of evidence. Furthermore, statutes of limitation are thought to (5) promote diligence on the part of injured parties and their attorneys (6) encourage the prompt enforcement of substantive law (7) prevent the retroactive application of new standards of performance, and (8) generally reduce the time needed to bring claims to conclusion (Paterson, 2002).

Opponents of shorter statutes of limitation argue that the purpose of tort law is to fairly evaluate the merits of a claim, and that artificial time restrictions are simply procedural limitations that adversely impact justice. They also assert that the deterrence function of tort law is compromised by time limitations.

Statutes of limitation are simple on the surface but are often very complex to interpret and apply. Issues such as when treatment began or ended, when the injury actually occurred, when discovery took place, or other time-injury interpretations continually plague the courts. As a result, state legislatures are constantly evaluating and amending their statutes of limitations in response to court interpretations in an effort to properly balance the interests of the competing parties (Paterson, 2002).

Amendments to statutes of limitation have been subject to U.S. Constitutional challenges in many states, involving equal protections violations⁷⁰ and due process infringements⁷¹; as well as numerous state Constitutional grounds. Most state courts have upheld the constitutionality of these amendments, however (Paterson, 2002). One thing is clear; statute of limitations provisions in state laws will continue to be a major battleground of medical malpractice tort reform well into the future.

Collateral Source Rule Changes

The collateral source rule states that damages awarded to plaintiffs through malpractice verdicts cannot be reduced by any independent source of compensation available to the injured party, i.e. salary continuation plans of employers or private insurance plans. Indeed, juries are not allowed to even know if any independent sources of compensation are available. The obvious problem with collateral source income is that the injured party can receive duplicate compensation for an injury, although it is hard to argue in death cases that the plaintiff has been overcompensated. Reducing damage awards by collateral benefits would certainly appear to have a moderating effect on malpractice awards, thereby ameliorating the cost of malpractice insurance premiums.

Proponents list several justifications for the collateral source rule. First, there is a long held societal belief that the tortfeasor should not be relieved of his responsibility for negligence simply because the injured party had the foresight to have other benefits coverage. Secondly, if there is a windfall from insurance or other collateral sources, that bonus should be realized by the injured, not the injurer. Third, duplicate payments to plaintiffs are not inherently bad since it is difficult to place a monetary value on pain and suffering. Fourth, malpractice awards should not

⁷⁰ *Carson v. Maurer* 120 N.H. 925, 424 A.2d. 825 (1980).

⁷¹ *Helgans v. Plurad* 255 A.D. 2d. 554, 680 N.Y. 2d. 648 (1998).

interfere with benefits derived from private contracts that have been negotiated or paid for made by plaintiffs. Finally, the deterrent effect that is a central tenet of tort law would be undermined if the collateral source rule were eliminated (Saine, 1997).

Those calling for elimination of the collateral source rule argue that double-recovery violates the foundation that tort damages are intended to restore injured parties to their previous position, not enrich them. In their view, the prospect of overcompensation provides incentives for individuals to make claims for questionable injuries in the hopes that they may 'hit the jackpot'. Another key argument for reformers is that the collateral source rule is too rooted in deterrence theory, and that damage awards of any amount do not deter unsafe behavior. Finally, non-disclosure of collateral sources of compensation drives up the costs of insurance and affects both premiums and the availability of coverage (Saine, 1997).

While the empirical examination of the deterrence effect on behavior has not yet produced any unchallenged conclusions, many proponents of the rule point to the efforts that physicians have made in the last quarter century to reduce their individual malpractice liability. Data does clearly show that many improvements in the standards of care have been realized through the awareness of risk and threats of liability for unsafe medical practices or medical mistakes (Saine, 1997).

Limitation on Attorney Fees

One of the more vocal themes of tort reformers is that attorney compensation is a significant contributor to the high cost of medical malpractice litigation. Typically, the only source of plaintiff attorney compensation comes from damage awards to their clients. If the plaintiff is not successful in his claim, the attorney receives no payment for her services. If the

plaintiff is awarded damages, the attorney usually receives between one-third and one-half of the awarded amounts as payment, with forty percent being the general norm.

Reformers claim that contingency fee arrangements encourage individuals with spurious claims to sue, and that enterprising plaintiff attorneys often extort money from innocent medical practitioners who do not want to suffer the indignities or expense of a long trial. When awards are made, they argue that awards must be inflated to cover attorney fees and still provide just compensation to the injured party. They point to the fact that defense attorneys receive a fixed hourly fee for their services, which must be paid by the defendant or insurance company regardless of the outcome of the case, as an example of a playing field tilted in favor of plaintiffs and their attorneys.

Several states have adopted caps on contingency fees in medical malpractice cases in the last quarter century, with California (1975, 1978, 1990) being a pioneer in this arena, having set forth a percentage scale based on the amount of the award, as well as a client-attorney arbitration mechanism that can be invoked at the will of the client. Other representative states that have acted to limit attorney fees include Wisconsin (1975, 1985), Maryland (1984, 1985), Massachusetts (1986), Florida (1985, 1991), and New York (1985) (Eaton & Talarico, 1993). The impact of these changes have not yet been empirically tested enough to determine their efficacy.

Joint and Several Liability

Joint and several liability is a doctrine by which plaintiffs have the ability to collect an entire damages award from any liable defendant, regardless of the degree of fault of that particular defendant. The rationale for this rule was to provide protection for injured parties

when they were unable to provide proof of which defendant was the proximal cause of the injury.

Reformists argue that joint and several liability is neither rational nor fair because it allocates liability on an inequitable basis, and makes even a minimally liable party responsible for the entire judgment in the event of default by the primary tortfeasors. Tort reformists have thus pushed state legislatures to abolish joint and several liability in favor of a proportionality rule that allocates financial liability according to the amount of harm each defendant has caused. In some cases, they have further proposed that defendants who have caused less than a certain percentage of the harm be relieved of financial responsibility altogether.

In spite of the American Bar Association general support for the retention of joint and several liability, as of July, 2009 more than forty states have either modified its use or abolished it altogether in medical malpractice cases (American Tort Reform Association, 2009b).

Clinical Practice Guidelines

In the past decade or so, many reform strategists have advocated clinical practice guidelines as a method of reducing the frequency of medical malpractice filings, and ameliorating the overall cost of defensive medicine. Clinical practice guidelines are nothing more than written standards of care that have been generally accepted by organized bodies of the medical profession. The Institute of Medicine defined clinical practice guidelines as “...systematically developed statements to assist practitioner and patient decisions about appropriate health care for specific clinical circumstances (Mello, 2001).”

Medical experts believe that extensive use of clinical practice guidelines would accomplish two very important objectives. First, the presence of known standards of care would reduce physician uncertainty and improve the homogeneity of medicine in general. The by-

product would be less costly defensive medical behavior. Secondly, written guidelines would incent physicians and other caregivers to comply with standards purporting to represent the highest quality of medicine. Guidelines would provide an excellent paper trail that protects practitioners in the event of an untoward medical result, thereby improving patient outcomes and reducing the incidence of malpractice filings (Mello, 2001).

A roadblock to the use of clinical practice guidelines has been the inconsistent admissibility of these standards in state courts. In some courts, clinical practice guidelines have been considered as hearsay evidence, and therefore do not have the force of admissible evidence. In other courts, however, clinical practice guidelines have been accepted as ‘learned treatises’ and have been allowed as evidence in medical malpractice cases. Admissibility seems now to be dependent on how the guidelines have been derived. In *Daubert v. Merrell Dow Pharmaceuticals, Inc.*⁷², the Supreme Court created a framework for analyzing the reliability and authoritativeness of the scientific evidence supporting particular guidelines, sending a message to the constructors of guidelines that they cannot simply be medical preferences, but must be scientifically based.

Proposals for greater use of clinical practice guidelines have been grouped into three broad categories (Mello, 2001). The contract model ties patient, provider and payer together through a common understanding of how certain conditions are to be handled. A common set of guidelines specified in the contract would theoretically insure that each party understands the rules of engagement. Opponents of the contract model argue that patients typically driven by choice theory will inevitably choose insurance plans based on cost and will not understand the implications of the clinical practice guidelines.

⁷² 509 U.S. 579 (1993).

The second model, called the judicial notice model, calls for courts to fully recognize clinical practice guidelines as the standard of care and accept certain facts in malpractice cases without requiring either party to bear the burden of proof of these facts. This would allow the court to focus on (1) whether the physician breached the standard of care (2) whether the plaintiff indeed suffered an injury, and (3) whether the practitioner's negligence was the proximate cause of the injury. Opponents of this model contend that clinical practice guidelines are (1) idealized medical processes, and are not representative of how medicine is actually practiced, (2) they are never likely to be uniform throughout the country, setting up conflict between medical professionals, thereby negating their evidentiary value, and (3) that while they may be well reasoned and stated general opinions of medical experts, their applicability to any particular case may be suspect.

The Maine Model involves the creation of an affirmative defense, whereby practitioners in particular specialties subscribe to a particular set of guidelines that the courts recognize as the standards of care. Practitioners who faithfully follow the guidelines are thus given a 'safe harbor' against adverse medical malpractice judgments. Opponents claim that this represents "one-way" justice, and is not fair because it protects practitioners but not the injured. Since this approach was instituted as a demonstration project in the Maine in 1990, this exculpatory model seems to have had little effect in the medical malpractice environment (Mello, 2001).

Some true reformers suggest that Health Courts utilizing 'expert' panels and some form of clinical practice guidelines present an ideal vehicle for attaining the equity, justice and efficiency that is the central goal of system reform.

Jury Service Reform

A relatively recent tort system refinement addresses what many believe is the core problem in medical malpractice litigation...judicial proficiency. While the Seventh Amendment to the United States Constitution grants defendants the right to a trial by jury in Federal civil cases, this Right does not automatically extend to state civil trials because the Seventh Amendment has never been incorporated by the Fourteenth Amendment. Some state constitutions do include this entitlement, but there are many states that do not, leaving the door open to jury service modifications or even elimination of juries altogether in civil cases.

The American Tort Reform Association (2009c) contends that modern juries are becoming less and less representative of most communities, and that they rarely ever constitute a 'peer' cohort for physicians. ATRA cites studies that show that 20% of those called for jury duty routinely do not respond when summoned. In addition, "occupational exemptions, flimsy hardship excuses, lack of meaningful compensation, long terms of service and inflexible scheduling results in a jury pool that makes it difficult for working Americans to serve on a jury and disproportionately excludes the perspectives of many people who understand the complexity of issues at play during trial.(American Tort Reform Association, 2009c, 61)."

To date, thirteen states have adopted some refinement involving jury selection, participation and/or compensation, although many consider these new remedies to be minor patches to a major jurisprudential proficiency problem. They have opened the door, however, to the concept of replacing juries with specially trained jurists or judicial panels, which are the keystone of specialized health courts.

Tort Reform: From Refinement to Replacement

While empirical research has been somewhat contradictory, most studies have substantiated that some ‘refinements’ such as limitations on damage awards, modification of joint-and-several liability rules, and revision of statutes of limitation have reduced claims frequency and severity. The efficiency and equity of claims adjudication remains unaffected (Danzon, 1984, 1986, 2004; Sloan et. al, 1989; Zuckerman et. al, 1990; Blackman & Zeckhauser, 1991; Viscusi et. al, 1993; Thorpe, 2004; Viscusi & Born, 2005).

It should be noted that the conventional reforms taken to ameliorate the medical malpractice ‘crisis’ have centered on activities that reduce financial outlays in the system, i.e. improve economic efficiency; while little attention has been paid to activities that directly affect the delivery of medical care, i.e. insure distributional equity. Instead of moves to ferret out and eliminate poor physicians, allied health providers or medical institutions, the emphasis of reform has been placed on barriers to compensation...the final essential element of tort law. Consequently, these refinements have not satisfied tort system critics.

Despite the many refinements that have been made to medical malpractice law, strong advocates of tort reform still cite several concerns about the current system: (1) transactions costs, i.e., attorney fees consume too much of the judgments awarded to plaintiffs, thereby increasing overall system costs (2) compensatory damages for pain and suffering, as well as punitive damages for wanton negligence, are determined arbitrarily, with no beneficial effect on patient safety (3) the class action mechanism is too easily abused by plaintiff attorneys (4) medical malpractice insurance rates have been driven up so high that physicians are restricting the scope of their practices or are retiring altogether (5) patient access to high risk physician services is being restricted because training in those specialties is being curtailed by the litigious

environment (6) the total cost of medicine is being driven up precipitously by litigation, and (7) trust in the physician-patient relationship has been eroded by excessive litigation (Congressional Budget Office, 2005; Darr, 2004b; Middleton, 1995).

As stated earlier, reform opponents say that the existing tort system serves the important policy objectives of distributive justice, accountability and overall health system safety. Unfortunately, not enough data is available to test both sets of arguments. The data that are available, however, seem to suggest that the current system is expensive, and that the cost offset must come from deterrence or equity considerations (Congressional Budget Office, 2005).

Most reformists do not believe that conventional reforms (refinements) can ultimately be effective in realizing the equity, deterrence and efficiency goals. Accordingly, over the past twenty years some prominent fundamental system reforms (replacements) have been advanced by court system critics. These system reforms are classified as: (1) alternatives to the negligence standard, (2) transfer of legal responsibility, and (3) innovative alternative dispute resolution mechanisms (Studdert, Mello & Brennan, 2004).

Alternatives to the Negligence Standard

Some reform advocates have posited that a complete break in applying the negligence standard is critical to improving the efficiency and equity of adjudicating medical claims. The two major alternatives to the negligence standard that have been advanced are (1) no-fault administrative systems, and (2) pre-determined compensable injury directories (Studdert, Mello & Brennan, 2004).

The first type of no-fault medical claims system would operate much like worker's compensation, where an administrative agency of medical and legal experts would pass judgment on injury claims and provide 'sensible' compensation for *all* medical injuries based on

DCEs, or ‘designated compensable events’ (Weiler, 1991). The second form of no-fault system would only carve out *selected* classes of clinical outcomes and provide predetermined payments for injuries that are considered by their very nature to be preventable. The basis for selection would be ACEs, or ‘accelerated-compensation events’, which are defined by medical professionals as avoidable injuries, based in terms of statistical probabilities. Proponents argue that the use of ACEs make adverse outcomes readily identifiable and preventable with good care and non-distorting medical decision-making. They also assert that this type of alternative dispute adjudication will prevent medical mishaps through improved quality of care and will vastly accelerate the resolution process (Bovbjerg, Tancredi & Gaylin, 1991b).

Both of these no-fault alternatives limit their focus to fair compensation for victims of medical mishaps rather than placing blame on medical professionals. Instead of using the complex negligence standard, the no-fault approaches would use a determination of avoidability. Because the avoidability standard is easier to administer than the negligence standard, it would make a larger number of medically injured patients qualify for compensation. Also, such a system would ease the confrontation between medical professionals and patients. In theory, it would also reduce court time and overall system costs. However, critics assert that the higher number of eligible beneficiaries would actually raise payouts to unsupportable levels (Studdert, Thomas, Zbar, et. al., 1997).

Transfer of Legal Responsibility

A second contemporary system replacement proposal calls for the creation of structures that shift legal responsibility away from individuals to hospitals or integrated delivery systems. This approach is called the enterprise-liability model. In this kind of arrangement, umbrella organizations would assume all legal responsibility for claims brought against hospital affiliated

personnel, including physicians. Supporters of this approach argue that this ‘systemic’ approach would increase coordination and accountability, improve the quality of care, and reduce the number of adverse events, thereby lowering the economic impact of medical injury compensation (Abraham & Weiler, 1994; Sage, Hastings & Berenson, 1994). Critics say that this does not sufficiently change the malpractice landscape because it simply shifts liability from one dominion of the health system to another.

Alternative Dispute Resolution Mechanisms

The final system replacement proposal calls for the use of alternative dispute resolution mechanisms that range from the aforementioned simple mediation and mandated arbitration vehicles to adjudicative state medical boards or specialized medical courts. As early as the 1980s, some reformers promoted the creation of special state boards to settle medical disputes through an administrative, fault-based adjudicatory scheme (Johnson, Phillips, Orentlicher & Hatlie, 1989). These boards would be designed to evaluate claims more predictably and find fault more expeditiously so that patients would have greater access to compensation when a transgression has been found. In addition to resolving medical malpractice claims, the proposed structure would modify and codify the legal elements of medical liability and engage in activities designed to improve physician education, credentialing and the disciplinary process.

A second sweeping alternative dispute mechanism is perhaps the most intriguing system replacement proposal that has been advanced. This scheme calls for the creation of specialized health courts with extensive screening procedures to handle professional disputes that require expert knowledge. For instance, malpractice cases would be handled by special courts consisting of individual jurists or panels of professionals with expertise in medical procedures and

standards. These courts have been advanced as a way to remove the misunderstandings, emotion, and ‘random justice’ elements inherent in lay jury adjudication (Howard⁷³, 2006).

In addition to the replacement of juries with jurists/judicial panels, the major changes to the current civil justice process would be the elimination of partisan witnesses through a court certified network of medical and economic professionals, and a more collaborative process of adjudication, rather than the present contrarian system of attorney/expert witness interaction.

Reform advocates contend that specialized health courts would speed up the adjudication process and improve the reliability and consistency of legal decision-making because jurists or judicial panels would have unique professional knowledge of medical issues and procedures, as well as cogent and unambiguous guidelines to follow (Mello, et. al., 2006). In addition, the use of an ‘avoidability’ standard would widen the eligibility criteria such that claims filing would be expedited and compensation easier to pursue. Compensation would be geared to the connection between the extent of real injury and level of error committed rather than the haphazard method used by juries. Finally, patient safety would be significantly enhanced because providers of care would receive clearer signals of what constitutes substandard care, and the avoidability standard would allow for better tracking of unfavorable outcomes. Research in administrative court systems in New Zealand, Denmark and Sweden seem to indicate that patient safety has been improved through an claims adjudication system that promotes a culture of safety and disclosure (Mello, et. al., 2006).

Studdert, Mello and Brennan (2004, 290) suggest that even though a few politicians have voiced support for some radical system reforms, “...it seems politically unlikely that any of the

⁷³ Philip K. Howard is a noted corporate lawyer with the firm of Covington & Burling in New York., and is founder of the bipartisan coalition group called *Common Good*. He is considered an ‘evangelist’ for tort reform, and has been a major Ralph Nader antagonist for two decades (Taylor, et. al., 2003).

most powerful voices in the debate will step forward to champion such initiatives. A more likely scenario is that the current enthusiasm for change will result in another round of conventional tort reforms.” Two inferences seem apparent. First, tort system refinements adopted over the past thirty years have not had a meaningful impact on equity, deterrence or efficiency, and certainly have done little to lessen the tort reform debate. Second, unless some persuasive data is unearthed from empirical study, no champion of radical system reform is likely to emerge, leaving legislative decision-makers to continue on the same safely ineffective course; thus perpetuating the debate far into the future.

The only course of action that seems likely to mollify reformists is a radical reform that will move medical mishaps from the current civil justice arena to an alternate adjudication scheme. Tort system supporters, however, are equally unlikely to support such a move unless it can be clearly demonstrated that a parallel medical tort process is indeed more economically efficient while maintaining or improving upon the deterrence and equity functions of the present tort system. Unfortunately, while several studies have examined the effects of conventional reforms (refinements) on claims frequency, severity, and/or insurance rates, little work has been done in evaluating both the feasibility and impacts of system reforms (replacement). This project is intended to evaluate key elements of the current system against the one system replacement scheme that appears to fulfill all the conceptual prerequisites necessary to breach the tort reform stalemate – the health court.

What exactly is a health court, and what makes reformists believe health courts will be more effective than the present civil justice process? While many variations on this specialized problem-solving court have been proposed, the major precepts of all health court designs include the replacement of jury trials with bench trials and the engagement of medical expert witnesses

by the court rather than by the parties involved in the litigation. Medical malpractice claims are said to present a unique cognitive challenge to jurors because of the personal nature of the physician/patient relationship, high patient expectations, and the intricate scientific and technical elements involved in understanding medical care delivery. Accordingly, tort reformers believe that a new venue for adjudicating medical malpractice claims will lead to more accurate outcomes, and do so in a more efficient and timely manner.

CHAPTER 6

System Replacement Criteria and Prior Research Findings

As stated earlier, three major contributors to civil justice failure have fueled the call for system replacement. Tort reformers cite (1) the lack of distributional equity (2) economic inefficiency, and (3) compromised jurisprudential proficiency as reasons that system replacement is needed. Less voiced, but certainly of major concern to current tort system supporters, is the preservation of a fundamental tenet of system efficacy, (4) deterrence of bad behavior (Pate & Hunter, 2006). Accordingly, these four elements must be improved by any alternative adjudicative process; and should be the central elements of comparison between the present tort system and health courts. While some data concerning distributional equity, economic efficiency and deterrence will be examined, the core element that was examined by this research involved jurisprudential proficiency.

It should be noted that many researchers have attempted to address these core issues, and have indeed uncovered fundamental deficiencies in the current tort system. The results of many of these studies suggest that system refinements have not been successful in improving equity, efficiency or deterrence and that major system reform is necessary (Mello, 2006; Studdert, Mello & Brennan, 2004; Thorpe, 2004; Bovbjerg, et. al., 1991b; Zuckerman et. al., 1990; Sloan, 1985, 1989; Danzon, 1985). No studies were identified, however, that have attempted to empirically test a key difference between the present tort system and cornerstone element of the proposed health courts – processes and outcomes of judge-based medical malpractice trials versus jury-based trials.

At present, most medical malpractice disputes are adjudicated before lay juries⁷⁴, although some cases are tried through bench trials. Since a central difference between the current tort process and proposed health courts is the use of specialized judges/jurist panels rather than juries, an empirical analysis of the crucial differences between these two modes of adjudication might provide meaningful insight into how the current tort system and proposed health courts would compare in the efficacy of solving the problems of deterrence, distributional equity, efficiency and jurisprudential proficiency.

Deterrence

The concept of deterrence in medicine relates to the quality of care rendered by physicians, allied health providers and medical institutions; and the relevant issue that should be explored is how effective the current tort system is in restraining negligent behavior and improving the quality of care. Several studies have examined the link between negligence and either the number of claims filed or the proper assessment of liability. One examination of medical records in California in 1974 showed that only one in ten negligent injuries resulted in the filing of a malpractice suit (Danzon, 1985); a Harvard Medical Practice Study that reviewed a sample of New York hospital records in 1984 showed that only one in eight negligent adverse events led to legal action (Brennan, et al., 1991); and a more recent study that examined approximately 5,000 medical records in Utah and 10,000 medical records in Colorado for hospitalizations in 1992 found that the claims filing rate for compensable negligence was only three percent (Studdert, et. al., 2000). These findings certainly suggest that the current tort system lacks an effective deterrent mechanism. In fact, Studdert, et al. concluded that:

⁷⁴ Various studies published by the Bureau of Justice Statistics since 2000 indicate that of the medical malpractice cases that actually go to trial, more than 90% are tried before a jury.

[t]he problematic relationship between occurrence of negligent injury and claiming behavior casts doubt on the ability of the malpractice system to meet either of its key objectives: deterrence of injury-causing medical practice and compensation of patients injured by substandard care. Our results confirm that the relationship between injuries caused by negligence and medical malpractice claims can be described as both lopsided and mismatched (Studdert, et. al., 2000, 258).

There appear to be two major contributing factors to the failure of the current tort system to act as a deterrent to negligent behavior. First, physicians do not fully understand how the legal system works, and second, there is a disconnect between negligent acts and payments to plaintiffs. In short, physicians do not understand the standards upon which they are being judged so they cannot react accordingly; and alternately, they are unable to predict with any accuracy whether or not a particular case will result in acquittal or a payment to the plaintiff (Liang, 1997). One study of the relationship between actual negligence and compensation over a ten year period found that forty-three percent of cases that demonstrated no evidence of negligence resulted in payments to the plaintiff, and only fifty-six percent of cases that demonstrated negligence actually resulted in compensation to the plaintiff (Brennan, et al., 1991).

Philip Howard, chairman of *Common Good*, a bipartisan coalition of citizens and political leaders dedicated to ‘restoring common sense to American law’ argues that the structure of health courts and the application of known performance standards will allow these specialized courts to surpass the tort system in meeting the deterrence objective. Structurally, judges in these courts would be specialists in medical standards, and evidence would be supplied by neutral experts who would give unbiased testimony founded upon evidence-based clinical practice guidelines. This contrasts with the current system of adversarial justice that draws on lay

juries who may be influenced by emotion or prejudice to render verdicts in complex cases.(Udell & Kendall, 2005).

It is posited that over a period of time, health court rulings would also establish new practice benchmarks that would close gaps in the inconsistent standards now being used in medical malpractice litigation. This rational and consistent approach to adjudicating medical claims could, therefore, send clear signals to physicians and other health care institutions about what constitutes good medical practice, and provide the incentives necessary to alter negligent behavior. The reduction in uncertainty would likely ameliorate the reliance on defensive medicine that contributes substantially to both medical errors and increased health system costs (Udell & Kendall, 2005).

There are three practical metrics that could be used for comparing the efficacy of deterring negligent behavior by medical practitioners and institutions. First, the number of medical malpractice suits filed per 100K population each year. If health courts provide a system that better facilitates a normative understanding by medical practitioners of the negligence boundaries, and there is a consistent and objective basis for evaluating medical mishaps, the number of cases filed should drop from current levels. Unfortunately, good baseline data is not yet available for the current system in most states. According to the National Center for State Courts, only a third of the states are able to report medical malpractice caseload data⁷⁵. For 2001, seventeen states representing slightly under one-third of the nation's population, reported 14,000 medical malpractice filings. While these states certainly do not represent a statistically valid sample, a rough extrapolation might yield an annual total of medical malpractice filings of between 40,000 and 45,000.

⁷⁵ The Court Statistics Project is an ongoing data reporting program of the Bureau of Justice Statistics.

Yates, et. al. (2001) conducted a study of factors that influence the overall tort filing rates for a twenty year period in ten states, using data from automobile accidents and surgical events. While they found that automobile case filings were influenced by several political, social and economic factors, and vary considerably by state, there was no statistically significant finding in cases involving surgical events. Their warning against generalizing about the overall rates of tort filings is probably a wise one; however, it seems reasonable to infer that a legal regime that replaces juries and client-oriented attorneys with specialized medical jurists and impartial counsel would reduce the number of filings because data and facts would more likely be weighed against consistent standards.

Mello and Brennan (2002) found little empirical evidence to indicate that the current tort system exerts a meaningful deterrent effect on physician behavior. In fact, another study found that physicians only have a 4% chance of having to compensate a patient when an error has been committed (Danzon, 1985). Mello and Brennan cite the presence of liability insurance and the 'poor fit' between negligent behavior and the incidence of suit as reasons for muted deterrent effects. While these scholars advocate for a no-fault type of system replacement, their reasoning suggests that virtually any procedure that better facilitates the development of systems to prevent errors would be preferable to current civil justice procedures. Accordingly, it seems plausible that health courts might improve the deterrence effects and reduce the rate of malpractice filings.

A second indicator of deterrence might be the percentage of adjudicated cases that result in verdicts for the plaintiff. Three surveys of the seventy-five most populous counties in the United States conducted by the Bureau of Justice Statistics demonstrate a relatively consistent pattern of verdicts in favor of plaintiffs in medical malpractice litigation (1992 = 30.5%; 1996 = 23%; 2001 = 26.8%). The salient point in these studies is that bench trials seem to result in

findings for the plaintiff at a significantly higher rate than jury trials (1992 = n/a; 1996 = 38.2%; 2001 = 50%), suggesting that health courts would likely have a higher incidence of positive negligence findings than the current tort system, resulting in some additional deterrent incentives for medical practitioners and institutions.

The final measure of a deterrent effect could be a comparison of the percentage of plaintiff judgments that result in the assessment of punitive damages in bench versus jury trials. Again, data from the Bureau of Justice Statistics surveys of the seventy-five most populous counties from 1992 – 2001 is instructive. Over this decade, approximately 4% of all medical malpractice verdicts resulted in the awarding of punitive damages; however, bench trials awarded punitive damages at a rate of 8%. Therefore, it seems highly likely that health care courts that adjudicate cases through specialized medical judges/panels and impartial attorneys would assess punitive damages more often than the current civil justice mechanism, leading practitioners to be more vigilant in attempting to avoid bad practices that might result in malpractice litigation.

Overall, these indicators seem to suggest that health care courts could potentially have a stronger deterrent effect on medical practitioners than the present tort system. This effect could be tested empirically if Congress enacts the Fair and Reliable Medical Justice Act⁷⁶ and the demonstration states involved gather and report reliable medical malpractice caseloads, trial outcomes, and punitive damages award statistics.

⁷⁶ S. 1518, introduced in July, 2003 by Senator Michael Enzi (R) from Wyoming, proposed funding for selected states to evaluate alternatives to the current medical malpractice tort system, including (1) an early compensation and disclosure program (2) a no-fault compensation system, and (3) health care courts. The bill died in Committee for lack of action in June, 2004. S. 1337, The Fair and Reliable Medical Justice Act, was introduced in July, 2005, expired in July, 2006 for lack of action; and was reintroduced and referred to Committee as S. 1481 in May, 2007.

Distributional Equity

Distributional equity relates to the ability of the civil justice system to properly assess adverse outcomes and mete out judgments that are fair to both the medical practitioner and the injured patient. The few studies that have examined these issues suggest that the current medical liability system does not fare well in either identifying negligent acts or awarding fair compensation, and does little to induce the improvement of the quality of care delivered.

The initial Harvard Medical Practice Study in 1990 that was based on 31,000 randomly selected hospital records in New York in 1984 found that only 1% of hospitalizations resulted in negligent injuries (Brennan et al., 1991), while a follow-up study of more than 15,000 hospitalizations in Utah and Colorado indicated that negligence-caused bad events comprised less than 1% of hospitalizations (Thomas et al., 2000). While these studies were certainly not representative of the entire spectrum of medical care delivery, they do offer valuable insights into assessment of the relationship between adverse events and the frequency of negligence. Because hospital services involve higher levels of morbidity than outpatient services, it has been surmised that the overall incidence of bad events and accompanying negligence is probably less than .5% of medical services rendered.

The Harvard research showed that only 17% of the New York cases where medical malpractice claims were filed involved negligence (Brennan et al., 1991). A follow-up study ten years later by some of the same Harvard researchers confirmed that there was little relationship between negligent injury and the outcome of claims filed (Baker, 2005). The Utah-Colorado study indicated that roughly 3% of the sample of hospitalized patients experienced some kind of bad event, but only about a third of those events were the result of negligence (Thomas et al., 2000). Of those who had adverse outcomes and initiated medical malpractice suits, only 22%

had actually experienced a negligent event; while 56% of suits filed by sample study patients “...were made in the absence of any adverse event (Studdert et al., 2000).” These researchers concluded that that the probability of a suit being filed after a negligent adverse event is only 3.8% -- clearly an indictment on the equitability of the present tort system.

These claims have not gone unchallenged, however. Baker (2005) reexamined the results of the Harvard Medical Practice Studies and interpreted the data much differently than portrayed by other scholars. He concluded that the “...results also demonstrated that most medical malpractice victims do not file claims and that the real medical malpractice litigation problem is ‘the malpractice system is too inaccessible, rather than too accessible, to the victims of negligent medical treatment.’”

The point here is not who is correct in their assessment of the research data, but rather that neither side in the medical malpractice debate believes distributional equity is being served by the current tort system. In a synthesis piece, McCammon (2000) cited several works that have concluded that the tort system is broken:

The overriding fact that remains is that the current tort system does not work (Charles et al., 1985) (Taragin et al., 1992) (Bovbjerg, et al., 1992) (American College of Physicians, 1992) (Manuel, 1990) (Mirvis, 1993) (Morse, 1993) (Brennan et al., 1996). It is a system that lacks credibility and legitimacy as a means of obtaining civil justice. It is a system that does not adequately protect the rights of victims. In fact, the current system severely limits victims’ rights by not adequately identifying and compensating victims (patients) of negligent care, and by punishing other victims (physicians) for delivering non-negligent care. It is a system that does not optimally deter substandard care or improve the quality of care. It is a system

that impedes rather than enhances progress to improve medical malpractice prevention measures (McCammon, 2000, 94).

There appear to be three meaningful metrics that might be used to compare the equitability of the current tort system with health care courts. First, the percentage of actual medical injuries-to-compensation awards can be measured and evaluated. Since the Harvard Medical Practice Studies and Utah-Colorado Study have already broken ground in assessing adverse events in hospitals, it should only be a short leap to be able to gather and evaluate outpatient events through the review of medical records from major group practices in sample states where there are health court demonstration projects. Based upon the limited data that is available, it seems reasonable to hypothesize that health courts would improve the rate of compensation to identifiable negligent injuries from its present 3.8% rate.

The second useful indicator might be the length of time from claim filing to final disposition of medical malpractice cases. According to a Jury Verdict Research (2003) sample of 2002 cases, the median elapsed time between a medical mishap and the filing of a medical malpractice claim was 25 months, and the time from initiation of litigation until final disposition was another 26 months. The Civil Justice Survey of State Courts (Bureau of Justice Statistics, 2000) indicated that the median civil court processing time for jury trials was approximately 31.1 months for jury trials and 18.8 months for bench trials; and that 34.4% of jury trials were concluded within two years while 75.3% of bench trials were completed in two years or less. The lengthy delays that accompany jury trials represent a significant burden for low income victims of medical malpractice, which certainly does not demonstrate equitability for poor claimants. In addition, even middle class plaintiffs have life changing events such as job changes, moving to another state, or changes in marital status that cause cases to be abandoned.

More timely adjudication would surely be more equitable for both plaintiffs and defendants. Clearly, bench trials by specialized jurists/panels would yield a significant improvement in the time it takes to adjudicate a claim. Again, once demonstration projects have been in place for a period of years, case processing times could easily be determined and compared with pre-health court data in demonstration states to determine which system is more effective in minimizing processing times.

The third indicator of equity could be patient access to medical services as measured by the overall supply of physicians in a state, as well as in high risk specialties such as obstetrics, orthopedic surgery, and anesthesiology. According to the American Medical Association and several other physician constituent organizations, the current medical malpractice litigation system is forcing physicians in some specialties to either retire early or reduce the scope of their practices. For example, the Massachusetts College of Emergency Physicians (2003) quotes statistics that indicate that physicians have moved from some ‘crisis’ states (such as Arizona, Arkansas, Kentucky, Pennsylvania and Wyoming) to states with more favorable malpractice climates (such as Colorado and Texas); and other ‘crisis’ states (such as Georgia and Oregon) have seen reductions in the scope of practice. The facts seem to contradict these claims, however.

The overall supply of active non-federal physicians has steadily increased from nearly 500,000 in 1990 to roughly 871,000 in 2003. During the same period, the number of physicians in the ‘critical specialties’ has also grown: obstetrician/gynecologists – from 25,500 to 33,600; orthopedic surgery – from 14,200 to 18,400; and anesthesiology – from 17,800 to 29,300 (Statistical Abstract of the United States; 2006, 2003, 1997, 1992). In addition, the ‘crisis’ states and ‘reformed’ states, as defined by the Massachusetts College of Emergency Physicians, also

show steady increases in the number of physicians per 100,000 population from 1990 to 2003. In fact, the combined increases for Arizona (6.1%), Arkansas (34.7%), Georgia (19.6%), Kentucky (35.1%), Oregon (27.8%), Pennsylvania (25.5%), Wyoming (38.1%), Colorado (20.1) and Texas (21.1%) was 25.4%; hardly a crisis of access for patients. Accordingly, health courts would likely not offer any improvement in access over the current tort system.

The most revealing information regarding distributional equity would clearly be gleaned from knowing the percentage of actual medical injuries-to-compensation awards in a health court system versus the current tort system. The Harvard Medical Practice Studies and Utah-Colorado Study indicate that this kind of data gathering is feasible, if and when major medical institutions show a willingness to cooperate with researchers. Unfortunately, accurate sampling is not possible now because of both the inconsistency of records kept by medical practitioners and institutions, and the legal prohibition on access to records.

Economic Efficiency

Economic efficiency relates to the ability of the civil justice system to maintain a viable market in health care delivery by controlling unnecessary outlays in the system and facilitating health insurance availability for ordinary citizens and medical malpractice insurance for physicians. It has been posited that health courts could lower the transaction costs of litigation, lessen the expense of unnecessary medical tests motivated by the fear of litigation, reduce government spending on federal health programs, increase access to health insurance for millions of Americans, and decrease professional liability insurance premiums for physicians and other medical institutions (Joint Economic Committee, 2003).

In 2005, it was estimated that tort costs amounted to roughly 230 billion dollars, or more than two percent of Gross Domestic Product. In addition, these costs have doubled over the past

thirty years, and now represent “the highest tort costs of any developed nation (Mankiw, 2005, 103).” In testimony before the Council of Economic Advisors, Mankiw went on to say that:

... [m]aintaining our flawed tort system would perpetuate existing injustices and the resulting drag on our economy. In short, our tort system is needlessly expensive. And these figures don't even count the hidden costs of tort excesses – the planes that don't get built, the drugs that don't get marketed, and the extra miles a pregnant woman has to drive to find a doctor.... This is the excess burden of the tort system, the part that is not just a transfer from one pocket to another, but a true reduction in the size of the economic pie (Mankiw, 2005, 103).

As stated earlier, estimates of the cost of defensive medicine have ranged from seven billion dollars to more than one-hundred and twenty-five billion dollars annually. Unfortunately, there are not enough data to confirm any numerical estimate of excess tort costs, but the implication is clear – the tort system is inefficient and waste is substantial.

Because there are so many economic forces that drive the current tort process, system efficiency is difficult to measure. However, there appear to be three fiscal indicators that could reasonably be used as a gauge of the effect that health care courts might have on economic efficiency. Transaction costs of the current medical tort system could be the first valid indicator of efficiency. The most cited elements of these transaction costs include attorney fees, court costs, and the monetary and human cost attached to the performance of unnecessary tests and procedures done to avoid litigation.

Plaintiff attorney fees are primarily contingency-based, and typically consume 33% to 40% of court judgments or claims settlements, while defense attorney fees are typically based on a fixed hourly rate. According to a Chamber of Commerce supported White Paper on tort excesses, attorney fees comprise one third of the awards to plaintiffs, with plaintiff contingency

fees amounting to nineteen percent of that total (Dial et. al., 2005). The elimination of contingency fees in the health court system would clearly save substantial dollars while not compromising access to the courts for victims of medical mishaps. A substantial, but largely immeasurable, economic benefit might also be a reduction in frivolous lawsuits.

It also seems highly likely that there would be a reduction in unnecessary tests and procedures that physicians perform in the course of caring for patients. As indicated above, defensive medicine not only increases transaction costs of the system, but they pose additional injury risks to patients. A major argument of current tort system supporters is that the structural and administrative costs of a new specialized court system would be excessive and reduce economic efficiency rather than enhance it. However, the vast savings from reducing unnecessary medical tests and procedures should more than outweigh the additional overhead created by a new system (Mello, et al, 2006). Unfortunately, until health court demonstration projects are initiated, there will not be any valid empirical data that could be used to test the differences in transaction costs between systems. Once demonstration states have had some experience, however, attorney fees and defensive medicine costs could be compared through empirical research to determine the effect of health care courts in improving economic efficiency.

A third efficiency factor is available for study now. The cost of professional liability insurance has been the most visible and volatile issue in the tort reform debate. While many forces have influenced the medical malpractice crisis, the primary driver of the perpetual cycle of unrest certainly appears to be recurring spikes in professional liability insurance rates (Posner, 1986; Danzon, Epstein & Johnson, 2004; Studdert, Mello & Brennan, 2004; Thorpe, 2004).

Historical evidence suggests that tort system refinements have had a positive effect in moderating medical malpractice insurance premium increases. Whether or not this is the result of a Hawthorne Effect, the natural insurance cycle, or reforms has not been demonstrated; however, measurement pre and post health courts in demonstration states could be instructive. On the surface it appears that health courts could moderate professional liability premiums and contribute to improving economic efficiency.

Jurisprudential Proficiency

Jurisprudential proficiency refers to whether or not legal decision makers, i.e. judges and juries, are sufficiently competent to make correct decisions in cases that may require greater expertise to reason through complex medical issues involving alleged negligence and come to consistent decisions that are fair to both parties. There has been much written, but little undisputed evidence offered, concerning the competency of juries versus professional jurists. However, some studies do suggest that judges are better able to assess risks and reach objective decisions than jurors and "...that greater reliance on the authority of judges would improve judicial decision making (Hastie & Viscusi, 1998, 916)" (Guthrie et al, 2001). One fact is inescapable, however – there is no shortage of criticism of both jury and jurist motivations and behavior. While both groups inevitably inject personal bias into their evaluations of cases, it appears that the majority of judicial scholars suggest that judge-made decisions at the trial court level are more law and less emotion driven.

In fairness, it must be acknowledged that criticisms of jury performance are not unique to medical malpractice or product liability cases. Observers of the civil justice system point out that the problems of peer representation, avoidance of service, and erratic decision making apply to virtually all civil and criminal venues. The difference is that this lack of jurisprudential

rationality and consistency obscure the rules of medical practice and invite unnecessary and costly services, which of course, comprise the spectrum of defensive medicine. The following represents a brief review of the debate concerning jury behavior.

Physicians complain that civil juries are biased against defendants because they are perceived to have ‘deep pockets’, and make larger awards to plaintiffs as a result. A landmark 1985 study of jury verdicts in Cook County, Illinois and San Francisco, California involving over 14,000 cases suggested that this complaint is a valid one. Jury awards in all tort cases closely tracked the perceived wealth of the defendants, and when physicians were involved, awards were two and one-half times greater than awards for similar injuries resulting from less wealthy defendants (Hammit et al., 1985). Another prominent study conducted at Duke University, however, was critical of the methodological foundation for the study, and concluded that no ‘deep pockets syndrome’ could be substantiated (Vidmar, 1993).

Another criticism of juries is that they are typically swayed by emotion or other extraneous factors rather than by the objective rules of law (Danzon, 1985; Bovbjerg, et al., 1991a). One study concluded “...that juries tend to respond to factors that the substantive law regards as irrelevant (Hammit et al., 1985, 762). This is not a recent conclusion. In fact, as early as the mid twentieth century, Jerome Frank (1949, 177) concluded that juries were not capable of objectively weighing evidence and appropriately deciding civil matters. His opinion was that juries were “hopelessly incompetent (181).”

Frank alluded to perhaps the most salient criticism of the jury system – the ability of lay jurors to concentrate on complex issues and make competent decisions. O’Connell and Kelly (1987) posited that jurors lose focus in lengthy trials, are often swayed by skilled attorneys, are confused by expert witnesses, or are baffled by technical evidence to the point that they cannot

arrive at rational and fair decisions. Daniels (1989) offers a counter-point that stresses the dearth of empirical evidence to substantiate these claims. He suggests that these criticisms are based on horror stories, inappropriate aggregate data, and public opinion polls.

A comprehensive study of judges conducted by Guthrie et al. (2001) did little to resolve the debate over jury versus judge decision-making competence. They assessed the proficiency of both juries and magistrate court judges in five cognitive areas, and concluded that judges and juries were comparable in the areas of anchoring effects, hindsight bias and egocentric bias; while judges performed better in the areas of framing effects and heuristic representativeness⁷⁷. This suggests a slight edge for professional jurists.

Finally, Robbennolt (2002) conducted an extensive study of compensatory and punitive damage awards through written vignettes⁷⁸ given to judges and jury-eligible citizens. The purpose of her study was to assess whether or not severity of the injury, defendant wealth or plaintiff sympathy measurably affected damages awards. She found that juries perceived the defendants to be wealthier and more successful than did judges, and assessed plaintiff injuries as more severe than judges. Jury-eligible citizens also exhibited more sympathy for plaintiffs. However, the view that jury awards for punitive damages are higher was not supported, while mixed support was found for the belief that judges are more dispassionate and less prone to be swayed by sympathy. Her overall conclusion was that while there may be some perceptual differences between lay jurors and judges, removal of the decision-making task from juries, at least in the awarding of punitive damages, may not achieve the goals of tort system reformists.

⁷⁷ a. Anchors are essentially beginning points of reference for decision makers.

b. Hindsight bias is the tendency of people to overestimate the predictability of past events.

c. Egocentric bias is the tendency of people to overestimate their ability to think, reason or perform tasks.

d. Framing involves the manner in which information is presented in relation to the issues being considered.

e. A representativeness heuristic is an analytic framework that guides decision-making.

⁷⁸ The fact pattern involved the prescription of a drug for Depression by an HMO physician with known side-effects ranging from low (nausea or vomiting) to high (heart attack), which were manipulated for different groups. The study also manipulated the wealth of the defendant to gauge differences between jurists and jurors.

At present, there are no clear criteria for comparing the current tort system and health courts in the area of judicial proficiency. However, one might be able to infer expertise in adjudication from the percentage of cases filed that result in compensation to plaintiffs. In the health court process, an extensive screening process takes place prior to cases coming before the court. Hence, more meritorious cases should be heard. Presumably, more competent reasoning would result in a higher percentage of plaintiff awards than the present levels of 23% to 30% (Bureau of Justice Statistics, 1995, 2000, 2004).

Cognitive Theory and Jurisprudential Proficiency

In his humorous novel, *Roughing It* (1872, 256), Mark Twain quipped that a trial by jury was "...the most ingenious and infallible agency for defeating justice that human wisdom could contrive." While seemingly an outrageous statement made by a self-described sidewalk philosopher, none other than the eminent retired Supreme Court Justice Sandra Day O'Connor (2004, 213) saw fit to acknowledge the insight expressed by those remarks and concede that juries can be problematic in some situations. Another distinguished Supreme Court Justice, Benjamin Cardozo suggested why this may be the true.

Cardozo opined that every individual develops an underlying philosophy based on life experiences, beliefs, social needs, etc., which creates a 'stream of tendency' that undergirds every thought and action. He maintained that this 'stream of tendency' is particularly robust in the court room, strongly influencing how judges and jurors evaluate case facts and formulate their decisions. He goes on to conclude that: "We may try to see things as objectively as we please. None the less, we can never see them with any eyes except our own (Cardozo, 1921, 13)." The point all three individuals were making is that our attitudes and biases are clearly contained in our decisions.

While the purpose of this research was to study potential avenues for refining or overhauling the civil justice system, it is critical to have some basic understanding of the core of that system – the jury and the individuals who serve on juries. Accordingly, it is important to briefly examine how the individual cognition of jurors affects the equitability of the system.

Early theory revolved around Bayesian and other algebraic formulas that proposed to explain individual decision-making through the frame of Rational Choice⁷⁹ and/or its antithesis, Critical Theory⁸⁰. These attempts have largely been abandoned in the twenty-first century because of their failure to predict juror decisions (Pennington & Hastie, 1992; Simon, 2004). In their place, researchers have substituted human cognition theories which seemingly have their roots in Cardozo's 'stream of tendency' premise.

Cognition theories abound, and a full review of these theories is beyond the scope of this paper. However, a keystone theory propounded in the last twenty years appears to capture the essence of why individual backgrounds, experiences, attitudes and biases invade every aspect of life, including the courtroom where fact and objectivity are supposed to rule.

Pennington and Hastie (1992) promoted the concept that jurors create a story throughout the trial process that allows them to evaluate witness testimony and reach a plausible decision. Story constructs include finding appropriate cues from similar stories, themes or concepts from their past experience. All of which, of course, are biased by their particular parallax view of the world. The results of their study gave some credence to the story model in criminal cases, but the researchers warned that those results may not be generalizable to civil cases. A key point

⁷⁹ While specific definitions of Rational Choice Theory are plentiful, the gist of this theory is that individual decisions come from several forms of logical inference such as naturally occurring deductions, inductions, and analogies, which guide individuals to make choices that will be in their best interest.

⁸⁰ Critical Theory is rooted in the Legal Realist movement championed by Oliver Wendell Holmes. These theorists see the decision making process as being inconsistent with simple logic. Holmes opined that "the life of the law" is based not on logic, but rather "the felt necessities of the time," and that "judicial prejudices have more to do with legal decisions than the formal axioms of logical inference (Simon, 2004, 512)."

from Pennington and Hastie's research, however, was that while the researchers had developed good evidence of the 'story schema' and the development of mental representations of the case, they still had little knowledge about the nature of how the juror's 'network of beliefs' are created and structured, and how or when these mental images affect case decisions (Pennington and Hastie, 1992). Their inference was that while we know composite experience and beliefs affect the story, which in turn affects case outcomes, we don't yet know enough about the structure of the story to fully explain juror cognition or predict their behavior.

Simon (2004) later advanced the concept of story construction or mental-modeling through his research in the emerging field of what he describes as 'coherence-based reasoning'. Perhaps his most salient finding was that jurors are often driven toward decisions by coercion or manipulation, and that story coherence is influenced by the decision maker's "preexisting attitudes, particularly those embedded in the person's enduring value system (542)." In his discussion, Simon lamented that if one could identify the specific cognitive phenomena that create the mental models and understand how they fail during the evaluation process, interventions and procedures could be introduced that could "...reduce the risk of error and thus make the decision-making process better fit the legal ideals it is intended to serve (513)." Once again, the researcher confirmed that while we do understand some aspects of cognition, so many questions still remain that juror decisions are still largely unexplainable.



Rowland and Carp's (1996) comprehensive work on District Courts examined the cognitive factors that affect jurist decisions and, not surprisingly, found the story schema with experiential memory and inferential perception to be just as applicable in judge decision making as it is for jurors. Perhaps their most relevant observation about cognition is that human beings are 'cognitive misers'; that is we have limited short term memory capability, but almost limitless

long term memory capacity. As a result, we draw extensively on our backgrounds to construct the stories we use to evaluate present day events and information. Accordingly, while judges, jurors and physicians all possess the same biases that come from attitudes, values and personal beliefs, their experiential backgrounds are sufficiently different that we can logically expect them to reach different conclusions some of the time when confronted with the same set of facts. This, of course, is the core of jurisprudential proficiency, and precisely why reformists argue that product liability and medical malpractice cases cannot be adjudicated fairly by lay jurors.

One can certainly argue that the collective wisdom of six, eight or twelve random citizens is greater than a judge with one set of values and a particular perspective. However, if that perspective is informed by unique educational and scientific qualifications that allow her to evaluate complex medical issues, doesn't it seem reasonable that her cognition of the facts and circumstances would be more valid than inexperienced lay juries? This research was intended to see if the cognitive differences discussed in the literature actually exist; and if so, is there enough disparity in outcomes between cases decided by lay 'jurors' and medically trained 'jurists' to justify the creation of specialized health courts.

Table 1

Comparison of Current Tort System with Health Courts by Goal and Impact Area

Goals	Impact Category	Alternatives	
		Current Tort System	Health Court Expectations
Deterrence	1. Number of medical malpractice suits filed.	40,000 - 45,000 Annually	Moderately lower number of filings
	2. Percentage of cases won by the plaintiff.	23-30%	Moderately higher win rate for plaintiffs
	3. Percentage of plaintiff judgments that result in the assessment of punitive damages.	4%	Notably higher rate of punitive damages
Distributional Equity	1. Percentage of actual medical injuries that are compensated.	3.8%	Measurably higher compensation rate for injuries
	2. Length of time from claim filing to final disposition.	Jury = 31.1 months Bench = 18.8 months	Significantly lower adjudication time
	3. Patient access to medical services.	266 physicians per 100K population (2003)	No improvement in patient access
Economic Efficiency	1. Annual transaction costs: a. Attorney contingency fees	33-40% of awards	Measurable reduction in attorney fees
	b. Cost of defensive medicine	\$125 billion	Significant reduction in unnecessary tests
	2. Professional liability insurance rates.	14.1% annually from 2000 thru 2003	Moderately lower annual increases
Jurisprudential Proficiency	1. Percentage of cases filed that result in compensation to plaintiffs.	23-27%	Slightly higher win rate for plaintiffs
	2. Competence in legal reasoning and decision-making.		

CHAPTER 7

Study Summary

The major concentration of this research project was the study of the jurisprudential proficiency component of the reform debate. Unfortunately, the results of this analyses provided only marginal support for the proposition that proposed health courts offer a viable and attractive alternative to the present civil justice system for settling medical malpractice disputes.

The study of the essential elements of jurisprudential proficiency was conducted through a quasi-experimental research design involving a medical malpractice mock trial video that was intended to assess:

1. Cognitive differences between potential ‘jurists’/‘jurors’ with (a) basic legal training (b) basic medical training, and (c) no training in either realm of expertise.
2. How perceptual differences in assimilating case facts are affected by attorneys, witnesses, jury instructions, and sympathy for the plaintiff.
3. Whether or not there is a meaningful difference in case outcomes, amount of compensatory damages, or assignment of punitive damages between the three types of study participants.

Study Concepts and Hypotheses

Scientific and technical evidence are said to present a special challenge for jurors in evaluating the veracity of charges against product liability and medical malpractice defendants since evidence is nothing more than filtered fact, which is often misinterpreted by lay jurors (Sanders, 1996). Thirty civil trials involving the relationship between the drug Bendectin and

birth defects presented a rare quasi-laboratory experiment for researchers to test hypotheses related to juror/jurist reasoning. Since the facts and evidence for each case were almost identical, the most prevalent variable was the jury or judge adjudicating the case. A study by Sanders (1996) revealed that plaintiffs won eight of the trials; the defendant, Merrell Dow, won nineteen of the cases; two cases resulted in hung juries; and one case resulted in a mistrial. Hardly the consistent result that should result if the basic tenets of equity, efficiency and deterrence are to be realized by the civil justice system. Further, of the twenty-seven cases that came to a legal result, the five that were adjudicated by bench trials all resulted in a verdict for the defendant. Sanders' therefore concluded that jury trials in these complex technical cases are a miscarriage of justice and that juries need to be replaced by specialized 'science courts' in these type of cases.

In a study of specialized Chancery Courts in the state of Delaware, Dreyfuss (1995) opined that "...there are concerns about jurors' ability to reach accurate results, particularly in cases involving complex facts, complex laws, or especially sympathetic circumstances." Another study of cognitive reasoning of jurors found that verdicts are heavily influenced by the plausibility of the narrative 'story' that the individual constructs as they listen to attorney arguments and witness testimony, rather than the pure facts and evidence of the case (Kuhn, Weinstock & Flaton, 1994). Based on the conclusions of these and other studies explicated in Chapter Six, I developed the following two hypotheses:

Hypothesis One: *Decisions of 'jurists' with medical or legal backgrounds will coincide with the correct case facts at higher rate than lay 'jurors' without legal or medical backgrounds.*

Hypothesis Two: *Decisions of 'jurists' with medical backgrounds will coincide with the correct case facts at a higher rate than 'jurists' without medical backgrounds.*

While much study has been done on juror characteristics and decision-making, relatively little has centered on the influence of expert witnesses on case outcomes when the subject matter is technical or scientific (Shuman, Champagne & Whitaker, 1996). The *Daubert*⁸¹ decision in 1993 set forth specific guidelines for judges to follow in qualifying scientific expert witnesses, which resulted in a cottage industry in witness research. However, no studies were found that have actually tested the effects of witness neutrality/partisanship in juror decision-making.

In their meta-analysis of research in this area, Shuman, et. al. reviewed the factors that appear to influence the juror's credibility ranking of 'scientific' expert witnesses. These scholars found that while witness credentials, qualifications and status were important, the most prominent influences on expert witness credibility were communication skills and clarity of presentation. In short, jurors seem to be looking for experts who are well qualified, articulate and decisive. Most often, however, in medical malpractice trials, the case becomes a contest of dueling witnesses in which the case outcome depends on which side has the most articulate expert witness. In a proposed health court system, expert witness would be engaged by the court rather than the combatants in the case. Would these expert witnesses be more credible to jurors and result in more accurate decisions in medical malpractice cases? This question prompted the development of the next hypothesis:

Hypothesis Three: *Decisions in the cases utilizing neutral expert witnesses will coincide with the correct case facts at a higher rate than cases utilizing pro-plaintiff/pro-defendant expert witnesses.*

Three surveys (Bureau of Justice Statistics, 1992, 1996, 2001) relating the history of damages awards that were discussed in Chapter Six⁸² indicate that jurors awarded compensatory

⁸¹ See page 59.

⁸² See page 72.

damages in medical malpractice cases more often than legal jurists, and that the damages awarded by these lay jurors were more than those awarded by judges in bench trials. Robbennolt (2002), however, found very little difference in the incidence or amounts of compensatory damages awards between jurors and jurists, although juror awards were marginally lower. These conflicting findings evoked two questions: (1) who would award damages more often, lay jurors or individuals with a medical background, and (2) which cohort would award the higher amount of damages? These questions suggested the following two hypotheses:

Hypothesis Four: *Compensatory damages will be awarded more often by lay ‘jurors’ than by ‘jurists’ with medical backgrounds.*

Hypothesis Five: *Compensatory damages awards by lay ‘jurors’ will be higher than damage awards made by ‘jurists’ with medical backgrounds.*

Clermont and Eisenberg (1992) conducted a seminal study of outcomes in federal bench and jury trials involving product liability and medical malpractice tort cases from 1979 – 1989 to see if there was a difference in plaintiff win rates and damages awards. Remarkably, they found that plaintiffs won at a substantially higher rate in trials adjudicated by judges than those decided by juries. In addition, the mean recoveries for plaintiffs were higher in bench trials. These findings were seemingly confirmed through a decade of malpractice case data from the Bureau of Justice Statistics (1992; 1996; 2001), which showed that judges awarded punitive damages at twice the rate of jury tried cases.

However, in her 2002 study of punitive damages awards, using a one-thousand word case summary, Robbennolt found that jury-eligible citizens and trial court judges were comparable in both frequency of awards and amount of damages. These contrasting and perhaps counter-intuitive findings raised two more questions: (1) would punitive damages be awarded more often

by lay jurors or individuals with a medical background, and (2) would the amount of the damages awarded by lay jurors be higher than the amounts awarded by medically trained ‘jurists’? These questions suggested two further hypotheses:

Hypothesis Six: *Punitive damages will be awarded more often by medically trained ‘jurists’ than lay ‘jurors’.*

Hypothesis Seven: *Punitive damage awards by lay ‘jurors’ will be higher than punitive damage awards by medically trained ‘jurists’.*

“It is beyond argument that a variety of extra-evidential factors influence jury decisions (Gerbasi, Zuckerman & Reis, 1977, 323).” Since that observation more than thirty years ago, much research has been conducted concerning the influence of race, gender and other personal characteristics of plaintiffs, victims, defendants, attorneys, judges and jurors on case outcomes. Other extralegal factors such as trial venues, media coverage and the effects of various types of witnesses have also been studied extensively. However, although some legal scholars assert that attorneys exert a stronger influence on trial outcomes than witness testimony, few studies have probed the extent of this attorney influence (Diamond, et. al., 1996).

One early study by Welch (1978) did offer some meaningful insight about attorney influence on jurors. The results of this Doctoral Dissertation research found that facts presented by plaintiff attorneys were the most important factor in juror decisions in his study, followed by witness testimony. An even more instructive finding was that in civil trials, defense attorney communication skills were predominant. Clearly, attorneys matter. This raised two final questions: (1) Do the different experiential and social backgrounds of ‘jurors’ and ‘jurists’ affect medical malpractice case outcomes, and (2) Are lay ‘jurors’ more likely to be influenced by non-legal factors than medically trained ‘jurists’? These questions suggested the final study hypothesis:

Hypothesis Eight: *Lay ‘jurors’ will be more influenced by attorneys than medically trained ‘jurists’.*

Observation Strategy

The vehicle used to conduct the study was a video recreation of an actual medical malpractice case decided in the State of Colorado in 2002. The mock trial was staged jointly by the University of Colorado Law and Medical Schools in 2008 under the direction of Professor Dayna Matthew⁸³, Associate Dean for Academic Affairs at the University of Colorado Law School.

The case involved a missed Diabetes Mellitus diagnosis of a thirty-year old African-American male by a first year medical resident and his attending physician; which ultimately resulted in his death two days after his visit to the outpatient clinic at the University of Colorado-Boulder. The jury in the actual case returned a non-negligent verdict, with the crucial piece of information being whether or not the doctors had taken a family history on the patient’s first visit, and whether the treating physician should reasonably have known about the patient’s family history of diabetes.

The mock trial video provided to the researcher by Professor Matthew included almost seven hours of trial testimony and discussion with medical and law students in attendance. This base video was edited into three separate scenarios, each approximately two hours and fifty minutes in length. Scenario One followed the facts of the actual case, and was considered by Colorado Law and Medical experts to be clearly representative of a non-medically negligent fact pattern. Scenario Two was edited to show prior knowledge of a family history of diabetes, but

⁸³ Professor Matthew obtained her undergraduate Degree from Harvard-Radcliffe and Juris Doctorate from the University of Virginia. In addition, she served a one year clerkship for now Supreme Court Justice Clarence Thomas. She was also a medical malpractice defense attorney prior to taking her post at Colorado Law in 2003.

there was much disagreement among physicians and medical students at both the University of Colorado Medical School and the Medical College of Georgia about whether this fact was enough to turn the scenario into a medically negligent one because of the relative contribution that family history has to the development of Type I and Type II Diabetes⁸⁴ (Mayo Clinic, 2009). The consensus was that it was a borderline negligent fact pattern; but for purposes of this research, this scenario was also categorized as a non-negligent fact pattern.

A third set of scenarios was created using the Scenario One pattern explicated above with changes to the framing of the medical and economic witness participation status. In the standard Scenario One version, the witnesses were engaged by the plaintiff, and clearly demonstrated partisan leanings. In the alternate version, the medical and economic witnesses were portrayed as being neutrally appointed experts of the court. In summary, there were three different representations of case facts/trial participants used to test seven hypotheses listed later in this chapter.

The initial study sample was intended to include approximately one hundred undergraduate students as proxies for ‘lay jurors’, fifty law students as proxies for legally trained jurists, and fifty medical students as proxies for medically trained jurists. These numbers roughly coincided with the results of a power analysis for sample sizing which indicated that approximately twenty-two individuals⁸⁵ were needed in each examination cell to obtain valid

⁸⁴ Type I diabetes was once referred to as juvenile or insulin-dependent diabetes. It is a chronic medical condition in which the pancreas fails to adequately produce insulin, a hormone needed to allow blood sugar to enter cells to produce energy. Many factors may contribute to the development of Type I diabetes, although genetics are considered a major cause. The medical disagreement revolved around the fact that although Type I diabetes normally emerges during adolescence, it can also develop well into adulthood. Medical students indicated that their responses were based on this patient having Type II diabetes. Type II diabetes, which is the most common form of the disease, develops in adulthood when the body becomes resistant to insulin or does not make enough insulin due to other co-morbidities such as obesity.

⁸⁵ Sample calculations were made using the Statistical Program G-Power. The initial power analysis indicated that twenty-two individuals would be needed for each scenario in order to attain results that would detect a medium size

study results. The actual sample size varied somewhat due to recruiting constraints and economic limitations. In addition, after initially testing the partisan/neutral witness hypothesis, it was determined that a larger sample would be needed for the second experiment. A subsequent power analysis for the additional sample indicated a need for a sample size of one hundred and twenty-two undergraduates. Ultimately, the undergraduate cohort for this experiment was increased to more than one-hundred students.

Final sample totals for the primary experiment included eighty undergraduate students, forty-six medical students and thirty-three law students. The total for the partisan/neutral witness experiment was one hundred and five undergraduate students. Demographic characteristics for each sample are reflected in Table 2 and Table 3. Sample demographics revealed a relatively balanced sample group; with the only remarkable factors being the decidedly conservative nature of white participants as compared with minority participants. Interestingly, law students were the most liberal group in the study, mainly because a high percentage of their participants were minority females.

difference between study groups with a .85 sensitivity such that a .05 statistical significance level could be attained.

Table 2

**Demographics of Neutral/Partisan Witness Sample
N = 105**

	Male	Female	White	Non-White	Liberal	Moderate	Conservative
Undergraduate Students	43 41%	62 59%	76 72.4%	29 27.6%	30 28.5%	39 37.1%	36 34.4%

	White	Non-White	Liberal	Moderate	Conservative
Male N = 43	33 76.7%	10 23.3%	16 37.2%	13 30.2%	14 32.6%
Female N = 62	43 69.4%	19 30.6%	14 22.6%	26 41.9%	22 35.5%

	Liberal	Moderate	Conservative
White N = 76	20 26.3%	24 31.6%	32 42.1%
Non-White N = 29	10 34.4%	15 51.7%	4 13.9%

Table 3

**Demographics of Undergraduate/Medical/Law Student Sample
N = 159**

	Male	Female		White	Non-White		Liberal	Moderate	Conservative
Undergraduate Students N = 80	32 40%	48 60%		60 75%	20 25%		23 28.8%	32 40%	25 31.2%
Medical Students N = 46	23 50%	23 50%		35 76.1%	11 23.9%		11 23.9%	22 47.8%	13 28.3%
Law Students N = 33	14 42.4%	19 57.6%		19 57.6%	14 42.4%		15 45.5%	13 39.4%	5 15.1%
Column Totals N = 159	69 43.4%	90 56.6%		114 71.7%	45 28.3%		49 30.8%	67 42.2%	43 27.0%

	White	Non-White		Liberal	Moderate	Conservative
Male N = 69	56 81.2%	13 18.8%		21 30.4%	25 36.2%	23 33.4%
Female N = 90	58 64.4%	32 35.6%		28 31.1%	42 46.7%	20 22.2%

	Liberal	Moderate	Conservative
White N = 114	33 28.9%	41 36.0%	40 35.1%
Non-White N = 45	16 35.6%	26 57.8%	3 6.6%

A total of seven mock trial sessions were held with undergraduate students on the University of Georgia campus from late June through late July, 2009; four sessions were held with medical students on the Medical College of Georgia campus in mid August, 2009; and four sessions were held with law students in the UGA Law School in late August and early September, 2009.

All sessions were conducted following the same guidelines and approach. Participants were allowed to make notes during the sessions if they desired to do so. Most undergraduates did not take notes, while virtually all medical students took advantage of this benefit. A majority of law students did not take notes. Sessions were divided into two modules that were approximately one hour and twenty-five minutes in length. Module 1 included the opening arguments by the plaintiff and defense attorneys; the plaintiff's testimony and cross-examination; and testimony/cross-examination of one medical and one economic witness. A break of roughly fifteen minutes followed Module 1. Participants were instructed not to discuss the case during the break to avoid peer influence which could contaminate the study results. Module 2 contained testimony and cross-examination of both defendant physicians and a Clinic appointment secretary; the judge's instructions to the jury; and closing arguments by both attorneys.

At the end of the sessions, participants were asked to complete a twelve item questionnaire consisting of five demographic questions, six closed-end questions, and one open-ended question. Questions Six and Seven were the exact questions given to the jury in the judge's instructions. In addition to the questionnaire, each participant in all groups received a written copy of the judge's instructions and an information sheet that contained definitions of compensatory and punitive damages. These items are shown in Appendices A, B and C.

Once all materials were returned to the researcher, the each group was debriefed and participants paid in accordance with the requirements of the University of Georgia Institutional Review Board. Participants were also instructed not to discuss the case with other students until after the final experimental sessions on their campus was complete. The debriefing outline is contained in Appendix D.

Models and Variables

Hypotheses One and *Two* were tested using the same Binary Probit Model and crosstabulations of particular variables of interest. Binary Probit was chosen because the dependent variables are not continuous, and are limited to two possible outcomes (correctly interpreted the facts, coded as 1; or did not correctly interpret the facts, coded as 0). Ordinary Least Squares Regression cannot be used for these type variables because the predicted values are constrained between zero and one, which violates a major assumption of a normal distribution.

The dependent variable for *Hypothesis One* was whether the 'jurist' or 'juror' correctly interpreted the facts of the case or did not correctly interpret the facts of the case to reach the appropriate verdict⁸⁶. The main independent variable of interest for this model was whether the 'jurist'/'juror' had a legal or medical background or did not have a legal or medical background.

⁸⁶ The term 'correct' refers to 'jurors'/'jurists' properly reaching a not-negligent decision in each scenario.

Control variables for the model were dummy variables for gender (Male = 1, Female = 0) and race (White = 1, Non-White = 0); and two dummy variables for political philosophy (Liberal = 1, Non-Liberal = 0) (Conservative = 1, Non-Conservative = 0), with Moderate being the reference category.

The dependent variable for *Hypothesis Two* was again whether the ‘jurist’ correctly interpreted the facts of the case or did not correctly interpret the facts of the case to reach the appropriate non-negligent verdict. The primary independent variable of interest for this model was whether the ‘jurist’ had a medical or legal background. Control variables for the model were dummy variables for gender (Male = 1, Female = 0) and race (White = 1, Non-White = 0); and two dummy variables for political philosophy (Liberal = 1, Not Liberal = 0) (Conservative = 1, Non-Conservative = 0) with Moderate being the reference category.

A second model was developed to test *Hypothesis Three*. The dependent variable for this model was whether the lay ‘juror’ correctly interpreted the facts of the case or did not correctly interpret the facts of the case to reach the appropriate verdict (coded as Yes = 1, No = 0). The main independent variable for this model was whether the expert witnesses for the case were ‘neutral’ court-appointed witnesses or were ‘partisan’ witnesses engaged by the plaintiff and defendant. Control variables were again dummy variables for gender (Male = 1, Female = 0) and race (White = 1, Non-White = 0); and two dummy variables for political philosophy (Liberal = 1, Not Liberal = 0) (Conservative = 1, Non-Conservative = 0) with Moderate being the reference category. This experiment only included undergraduate students since medically/legally trained individuals are almost certain to be excluded from jury service in the future because of their educational backgrounds. As for the previous two hypotheses, this

hypothesis was tested using a Binary Probit model and a crosstabulation of voting decisions and witness type.

Model three again utilized a simple Binary Probit analysis and a crosstabulation to test *Hypothesis Four*. The dependent variable in this model was whether or not compensatory damages were awarded in the case (Yes = 1, No = 0). The main independent variable of interest for this model was whether the award was made by a 'juror' without a medical background (coded as Yes = 1) or a 'jurist' with a medical background (coded No = 0). Control variables were the same as in the first two models, i.e. dummy variables for gender (Male = 1, Female = 0) and race (White = 1, Non-White = 0); and two dummy variables for political philosophy (Liberal = 1, Not Liberal = 0) (Conservative = 1, Non-Conservative = 0) with Moderate being the reference category.

Evaluation of *Hypothesis Five* involved some modification of the data to determine if a correction was needed for selection bias. Part one of the analysis utilized a simple Binary Probit model, followed by the calculation and statistical testing of an Inverse Mills Ratio, and employment of a Heckman Correction if selection bias was found. Stage three then utilized an Ordinal Probit Model since the dependent variable contained the five ordered outcomes shown below.

A crosstabulation was also used to evaluate the hypothesis. Since the Inverse Mills Ratio was not statistically significant, no selection bias could be identified. Therefore, no Heckman Correction was needed.

The dependent variable in model four was the amount of compensatory damages awarded to the plaintiff by category. The five categories were (1) Less than \$500,000 (2) \$ 500,001 – \$1,000,000 (3) \$1,000,001 – \$2,000,000 (4) \$2,000,001 – \$3,000,000, and (5) More than

\$3,000,000. The upper limit conformed to the figures used by the economic expert in the case. The primary independent variable of interest for this model was whether the award was made by a lay ‘juror’ without a medical background (coded as Yes = 1) or the award was made by a ‘jurist’ with a medical background (coded as No = 0). Control variables were again the same as in the other models, i.e. dummy variables for gender (Male = 1, Female = 0) and race (White = 1, Non-White = 0); and two dummy variables for political philosophy (Liberal = 1, Not Liberal = 0) (Conservative = 1, Non-Conservative = 0) with Moderate being the reference category.

Hypothesis Six utilized essentially the same Binary Probit model and crosstabulation scheme used to test *Hypothesis Four*, with the substitution of punitive damages for compensatory damages. Therefore, the dependent variable was whether or not punitive damages were awarded in the case (Yes = 1, No = 0). The main independent variable of interest for this model was whether the award was made by a ‘juror’ without a medical background (coded as Yes = 1) or a ‘jurist’ with a medical background (coded No = 0). Control variables were the same as in the first two models, i.e. dummy variables for gender (Male = 1, Female = 0) and race (White = 1, Non-White = 0); and two dummy variables for political philosophy (Liberal = 1, Not Liberal = 0) (Conservative = 1, Not-Conservative = 0) with Moderate being the reference category.

Hypothesis Seven was tested in stages just as was done for *Hypothesis Five*; first using a Binary Probit model on the entire data set, followed by the calculation and testing for selection bias using the Inverse Mills Ratio. Since no selection bias was identified, no Heckman Correction was needed. Once integrity of the data was verified, the third step Ordinal Probit model was employed because the dependent variable contained five ordered outcomes. Results were also demonstrated through a crosstabulation of damages amounts by student category.

As was the situation for *Hypotheses Four* and *Six*, the model for *Hypothesis Seven* simply substituted punitive damages for compensatory damages. Accordingly, the dependent variable in this model was the amount of punitive damages awarded to the plaintiff by category. The five categories were (1) Less than \$500,000 (2) \$ 500,001 – \$1,000,000 (3) \$1,000,001 – \$2,000,000 (4) \$2,000,001 – \$3,000,000, and (5) More than \$3,000,000. While the plaintiff in the case did not ask for punitive damages, I arbitrarily used the limits set forth in testing *Hypothesis Five*. The main independent variable was again whether the award was made by a lay ‘juror’ without a medical background (coded as Yes = 1) or the award was made by a ‘jurist’ with a medical background (coded as No = 0). Control variables were the same as in the other models, i.e. dummy variables for gender (Male = 1, Female = 0) and race (White = 1, Non-White = 0); and two dummy variables for political philosophy (Liberal = 1, Not Liberal = 0) (Conservative = 1, Not-Conservative = 0) with Moderate being the reference category.

Hypothesis Eight was tested using a Multinomial Logit model and crosstabulation of the most and least influential factors and student categories because the data was nominal rather than ordinal. Model six tabulated ten case elements to determine which factors exerted the most and least influence on each of the student groups, and whether or not this might have a bearing on their decision in the mock trial. These factors included the (1) plaintiff and defense attorneys (2) case facts (3) medical expert witness (4) non-medical witnesses (5) physician defendants (6) judge’s instructions to the jury, and (7) severity of the injury to the plaintiff.

The dependent variable represented the nominal categories outlined above, and the main independent variable was whether the category selection was made by a ‘juror’ without a medical background or a law student, with medical students being the reference category. Control variables were the same as in the first two models, i.e. dummy variables for gender

(Male = 1, Female = 0) and race (White = 1, Non-White = 0); and two dummy variables for political philosophy (Liberal = 1, Not Liberal = 0) (Conservative = 1, Non-Conservative = 0) with Moderate being the reference category.

A summary of study concepts, hypotheses and measures is listed below in Table 4.

Table 4
Summary of Study Concepts/Hypotheses/Measures

Concept	Hypothesis	Measurement	Expected Direction
Medically trained individuals evaluate scientific and technical information better than untrained individuals.	H₁ : Decisions of ‘jurists’ with medical backgrounds will coincide with the correct case facts at a higher rate than lay ‘jurors’ without legal or medical backgrounds.	Percentage of negligent votes in a non-negligent trial scenario by student group.	Lay ‘jurors’ will vote negligent at a higher rate than medical ‘jurists’.
Medically trained individuals evaluate scientific and technical information better than legally trained individuals.	H₂ : Decisions of ‘jurists’ with medical backgrounds will coincide with the correct case facts at a higher rate than ‘jurists’ without medical backgrounds.	Percentage of negligent votes in a non-negligent trial scenario by student group.	Legally trained ‘jurists’ will vote negligent at a higher rate than medical ‘jurists’.
Neutral medical expert witnesses have more credibility than biased medical experts.	H₃ : Decisions in cases utilizing neutral expert witnesses will coincide with the correct case facts at a higher rate than cases utilizing pro-plaintiff/ pro-defendant expert witnesses.	Percentage of negligent votes in a neutral witness vs. a partisan witness scenario.	Lay ‘jurors’ will vote negligent more often in the scenario using a neutral witness.
Lay jurors are more likely to make damages awards to plaintiffs than jurists.	H₄ : Compensatory damages will be awarded more often by lay ‘jurors’ than ‘jurists’ with a medical background	Percentage of compensatory awards granted by student group.	Lay ‘jurors’ will award compensatory damages more often than medical jurists.
Lay jurors have more sympathy and are more generous in their awards than jurists.	H₅ : Compensatory damages awards by lay ‘jurors’ will be higher than damages awards by ‘jurists’ with medical backgrounds.	Percentage of awards in scaled categories by student group.	Lay ‘jurors’ will have more awards in the higher damages categories than medical ‘jurists’.
Judges are better able to spot wanton negligence and will grant punitive damages more than lay jurors.	H₆ : Punitive damages will be awarded more often by medically trained ‘jurists’ than lay ‘jurors’.	Percentage of punitive damages awards granted by student group.	Medically trained ‘jurists’ will assess punitive damages more often than lay ‘jurors’.
Lay jurors have more sympathy and are more generous in their awards than jurists.	H₇ : Punitive damage awards by lay ‘jurors’ will be higher than punitive damage awards by medically trained ‘jurists’.	Percentage of awards in scaled categories by student group.	Lay ‘jurors’ will have more awards in the higher damages categories than medical ‘jurists’.
Attorney tactics have more effect on lay jurors than jurists.	H₈ : Lay ‘jurors’ will be more influenced by attorneys than medically trained ‘jurists’.	Percentage of students selecting attorneys as most influential in trial.	Lay ‘jurors’ will list attorneys as most influential factor in their decision.

CHAPTER 8

Study Results

According to Michael Saks (1992, 1149), "...much of what we think we know about the behavior of the tort litigation system is untrue, unknown, or unknowable." His observation may have been true 17 years ago, but technology has advanced so dramatically since his proclamation that virtually nothing in the tort system is now unknowable, almost everything is now discoverable, and the truth about how the tort system works can eventually be revealed. Unfortunately this study generated equivocal or statistically insignificant results, which did very little to satisfy the key questions involved in the tort reform debate; although the findings do establish some foundation for future research.

As is true of most problem-solving or research ventures, ample resources are necessary to facilitate a thorough examination of the issues. Economic resources allocated for this project were slightly under \$8,000, which limited the sample size and the type of participants used to test the study hypotheses. The researcher is convinced that a meaningful study of this project's hypotheses can be conducted in such a manner as to yield valid and reliable results if and when adequate resources are dedicated to the endeavor.

Evidence is continually being gathered to determine the true effectiveness of conventional malpractice reform measures; and indeed, some of the more innovative medical adjudication reforms need to be tested before any consequential assessment can be made of the efficacy of system refinements versus replacement. The process is probably only in mid-life, but there is an indication that more extensive research is underway (Mello, 2006). As these new

studies appear, perhaps true effect patterns will emerge, and some answers regarding tort reform will be illuminated.

This study was intended to provide information on two important aspects of proposed health courts that could support the commitment of the federal and state resources necessary to seriously examine radical alternatives. Unfortunately, the results of the study only hinted at the efficacy of replacing juries with medically trained jurists. The results of the study were mixed; with some findings appearing to support many opinions expressed in the literature that bench trials are more jurisprudentially effective than jury trials, but the study also provided fodder for the counter-arguments that the outcome of bench and jury trials would not be substantially different, and certainly not any more just.

Model One was a Probit analysis testing the cognitive differences between medical students, law students and undergraduate students to two separate mock medical malpractice trial scenarios. Again, Scenario One was seen by medical experts as clearly non-negligent, while Scenario Two was considered more borderline, although probably still non-negligent. While the researcher would have preferred scenarios that were clearly representative of non-negligent and negligent behavior, since all three groups were exposed to both scenarios in an equal manner, it was determined that meaningful perception differences could nonetheless be obtained. While the results of the model suggested that *Hypothesis One* and *Hypothesis Two* are correct, the statistical significance of the model indicated that there was roughly a 50% probability that the findings were due to chance. The only variable in the model that attained statistical significance at the .05 level was the variable for male/female participants across all three study groups. Full model results are shown in Appendix F.

The lack of statistical significance in the student categories raised the question of whether or not the experiment was biased due to either inadequate sample size or medical student confusion regarding the borderline nature of Scenario Two. The rationale for determining sample size is as much practical as it is scientific; and while a power analysis is helpful as a guide for establishing a foundation for obtaining meaningful results, the parameters for the analysis are essentially subjective. Typically, economic or recruiting considerations rule the selection of those parameters (Lenth, 2001).

Three standard parameters were chosen for this study: (1) statistical significance at the .05 level (2) a medium effect size (10-15%) for the difference between study groups, and (3) a sensitivity power of .85. The power analysis specified 5 degrees of freedom, one less than the number of independent variables in the model. A sample size conforming to these parameters should produce a model that has an 85% chance of detecting a 10⁺% difference between group outcomes at the .05 level of statistical significance. These parameters yielded a needed sample size of 143 participants in the study. The actual sample size for this model was 159 individuals.

While the researcher would like to have had a model that could detect small variances between study cohorts, even slight changes in model parameters would have increased the sample size exponentially. For example, simply increasing the sensitivity of the model from .85 to .90 would have yielded a required sample size of 183; and if the power remained at .85 but we wanted to increase the effect size such that a smaller difference could be detected, perhaps moving from a variance of 10% to 5%, the required sample size would have been 412, clearly well beyond the realm of economic and recruiting constraints.

The second factor that may have affected model significance was the fact pattern in Scenario Two. The physician advisors to this project opined that the physician defendant in the

case would have been negligent in not performing a simple glucose test on the patient if the medical record contained evidence of a family history of diabetes. In the debriefing sessions involving Scenario Two, the majority of medical student participants protested because they contend that the literature indicates that diabetic ketoacidosis (DKA), which ultimately caused the patient's demise, is overwhelmingly associated with Type I rather than Type II diabetes⁸⁷. They asserted that the plaintiff's deceased husband had Type I diabetes, and that family history by itself would not have dictated that the defendant physician perform a glucose level. Accordingly, it could be that the model was biased due to the difference in fact analysis by medical students rather than a true difference in perceptions.

Because of the concern for the disputed nature of Scenario Two, I ran a second model that only included participants who viewed Scenario One. The sample size was thus reduced from 159 to 105 participants in the three student groups. The results of the two models differed only slightly, but still followed almost the same interpretational pattern. The statistical significance of the Scenario One only data showed a statistical significance of .351, meaning that it is likely that our findings would be different one out of three times in subsequent samples.

Hypothesis One posited that medically trained 'jurists' would follow the case facts at a higher rate than legally trained 'jurists' without medical training. Both the primary and alternate models did in fact demonstrate this premise, with medical students correcting voting non-negligent 76% of the time and law students voting non-negligent 58.33% of the time in the abbreviated model; and 73.91% correctly to 66.67% respectively in the full model. Because of

⁸⁷ In her comments, one medical student argued that "They kept going on and on about family history of DM. Type I diabetes (which is what the patient had if he had DKA) has no familial association."

Another student posited that "Given these circumstances, I find the facts of the case important. Mr. Jones was not severely hypotensive or dehydrated (BP≈ 120/80). He may have deserved a blood glucose given his symptoms of polyuria and polydipsia, but he may not have been in DKA at the time of presentation in the office- you can acutely decompensate overnight in the setting of infection. Not all AF-AM have diabetes. Moreover, Type I diabetes (which is the more common cause of DKA) is not common in a 30 yr. old."

the lack of statistical significance, however, the null could not be rejected. This outcome suggests that there is likely a difference between perceptions of the two groups, but certainly does not yield actionable results.

Hypothesis Two averred that both medically and legally trained ‘jurists’ would correctly vote non-negligent at a higher rate than ‘lay’ jurors. The abbreviated model showed that medical students (76%) did arrive at the correct decision substantially more often than undergraduate students (61.11%), but undergraduates slightly outperformed law students (58.33%); while the full model followed the predicted pattern, with medical students voting non-negligent 73.91% of the time, law students at a 66.67% rate, and undergraduates 63.75% of the time. Again, the outcome is suggestive of some perception differences, but any assertion of a relationship is only speculative. Tables 5A and 5B reflect the findings of both models.

Table 5A

**Results of Undergraduate/Medical/Law Student Abbreviated Model
N = 103**

Scenario One Data Only

Reached Correct Decision	Medical Students	Law Students	Undergrad Students	Total
Yes	19 76.00%	14 58.33%	33 61.11%	66 64.08%
No	6 24.00%	10 41.67%	21 38.89%	37 35.92%
Total	25 100%	24 100%	54 100%	103 100%

Pearson Chi² (2) = 2.0943 Pr = 0.351

Table 5B

Results of Undergraduate/Medical/Law Student Full Model

N = 159

Scenario One and Scenario Two Data

Reached Correct Decision	Medical Students	Law Students	Undergrad Students	Total
Yes	34 73.91%	22 66.67%	51 63.75%	107 67.30%
No	12 26.09%	11 33.33%	29 36.25%	52 32.70%
Total	46 100%	33 100%	80 100%	159 100%

Pearson Chi² (2) = 1.3782 Pr = 0.502

The Probit model did expose a rather notable statistically significant voting relationship between male and female participants across the student spectrum. Table 6 demonstrates that relationship. Forty females in the sample voted that the defendant physicians were negligent, slightly over 44% of that constituency; while only 12 of 69 males or 17⁺% voted negligent. As will be discussed later, it appears that the emotional arguments put forth by the plaintiff attorney carried more weight with females than males. This serendipitous finding confirms the results of previous studies on gender differences that indicate that females are more easily persuaded by attorneys, witnesses, fellow jurors, and other extralegal factors (Penrod & Hastie, 1980) (Golding, et. al., 2007).

While this gender finding does not provide any actionable information for tort reformers, it does afford some instructive data for participants in the legal process; specifically jury

consultants and plaintiff/defense attorneys. It also suggests support for the argument that medical/legal/lay person panels might make more rational decisions than random juries with female participants.

Table 6
Gender Differences in Voting Negligent
N = 159

Scenario One and Scenario Two Data

Reached Negligent Decision	Female	Male	Total
No	50 55.56%	57 82.61%	107 67.30%
Yes	40 44.44%	12 17.39%	52 32.70%
Total	90 100%	69 100%	159 100%

Pearson Chi² (1) = 12.9878 Pr = 0.000

Model Two was another binary Probit analysis testing the differences between the influence of a partisan or neutral witness on undergraduate students in four separate mock trial sessions. Scenarios One and Three were used to determine if a neutral medical expert witness would be seen as more credible to lay ‘jurors’ than a blatantly partisan medical expert. Both scenarios reflected the clearly non-negligent fact pattern. The results of this model discounted the assertion contained in *Hypothesis Three*, which postulated that the neutral expert would be more persuasive to undergraduate students than the partisan expert. In fact, the results demonstrated the opposite, with 38.89% of the undergraduate students voting negligent in the

partisan expert scenario and 33.33% of the students in the neutral witness scenario voting negligent. This is seemingly a nonsense finding since there would be no logical reason to prefer a biased witness to a neutral one. In short, the type of witness made no difference to participants. Once again, however, the model failed to approach statistical significance; with only the gender differentiation discovered in Model One being statistically significant ($p < .007$). Since the sample used in Model Two was completely different than the participant sample in Model One, the male/female perception differences were confirmed. Table 7 summarizes the undergraduate response findings to the two expert witness scenarios. The full Probit model results are shown in Appendix F.

Table 7

**Undergraduate Responses to Neutral/Partisan Medical Expert
N = 105**

Scenario One and Scenario Three Data

Reached Negligent Decision	Partisan Expert	Neutral Expert	Total
No	33 61.11%	34 66.67%	67 63.81%
Yes	21 38.89%	17 33.33%	38 36.19%
Total	54 100%	51 100%	105 100%

Pearson Chi² (1) = 0.3505 Pr = 0.554

Model Three was another straightforward Probit regression that tested *Hypothesis Four*, which asserted that lay ‘jurors’ would award compensatory damages more often than ‘jurists’

with medical backgrounds. The results of this model were identical to Model One because every student participant who voted for the plaintiff also awarded compensatory damages. The results followed the hypothesized pattern suggesting that untrained ‘jurors’ (36.25%) would indeed award compensatory damages more often than medically trained ‘jurists’ (26.09%); however, as in Model One, the statistical significance of the model indicated that there was roughly a 50% probability that the findings were due to chance. Accordingly, any assertion of a causal relationship between study groups and compensatory damages awards is purely speculative. Table 8 summarizes the data for compensatory damages awards. The full Probit model results are shown in Appendix F.

Table 8

**Compensatory Damages Awarded by Undergraduate/Medical/Law Students
N = 159**

Scenario One and Scenario Two Data

Compensatory Damages Awarded	Medical Students	Law Students	Undergrad Students	Total
No	34 73.91%	22 66.67%	51 63.75%	107 67.30%
Yes	12 26.09%	11 33.33%	29 36.25%	52 32.70%
Total	46 100%	33 100%	80 100%	159 100%

Pearson Chi² (2) = 1.3782 Pr = 0.502

Model Four utilized a more complex three-step procedure to test *Hypothesis Five*. This hypothesis posited that the compensatory damages awards by lay ‘jurors’ would be higher than

the compensatory damages awards made by medical ‘jurists’. As pointed out in Chapter Seven, the issue of selection bias had to be addressed since 107 of the 159 initial participant responses were zero because they voted in favor of the defendant physicians, leaving only 52 responses to be allocated among four compensatory damages categories. Those voting non-negligent were therefore effectively eliminated from the sample before the Ordinal Probit model was run.

Before running the initial Binary Probit, a new variable for the Inverse Mills Ratio⁸⁸ was created and entered into the model to test for selection bias. The new variable was not statistically significant ($p < .929$), indicating that no selection bias was present. Once the veracity of the sample was confirmed, an Ordinal Probit analysis was conducted to see if a compensatory damages award pattern between student categories could be detected. In this calculation, neither the variable for undergraduate students ($p < .193$) nor law students ($p < .229$) approached statistical significance. The full output for Model Four is shown in Appendix F.

The crosstabulation for compensatory damages awards and all student categories did reveal a difference between medical student awards and undergraduate student awards. Two-thirds of the medical students awarded damages of less than one million dollars, while only 48% of undergraduate awards fell in the lowest category. Further, the final one-third of medical students opted for the second highest category, one million⁺ to two million dollars. Almost 25% of the undergraduate awards were in the categories above two million dollars. Interestingly, law student awards (27.27%) above two million dollars were even higher than the undergraduate student totals. Although not a statistically significant finding, this certainly suggests that *Hypothesis Five* could be true. It is my opinion that the lack of significance is likely due to a

⁸⁸ The Inverse Mills Ratio is the ratio of the probability density function over the cumulative density function of a sample distribution, typically used when a sample distribution is truncated for some reason. The issue presented in regressing a censored sample is whether or not the concentration of data at one end biases the results of the regression. If this is the case, the Heckman Correction is employed to moderate the selection bias.

lack of sufficient responses in each award category rather than a correlation failure. Table 9 summarizes these findings.

It should be noted that the economic expert in the mock trial presented a calculation that showed the plaintiff's loss of income to be approximately \$3,100,000; and while most trial participants in all student categories named the economic witness to be the least important factor in their trial decision, one in four undergraduates granted awards approaching that level.

Table 9
Compensatory Damages Awards by Category -- Undergraduate/Medical/Law Students
N = 52

Scenario One and Scenario Two Data

Compensatory Damages Awards	Medical Students	Law Students	Undergrad Students	Total
< 1M	8 66.67%	4 36.36%	14 48.28%	26 50.00%
1M+ -- 2M	4 33.33%	4 36.36%	8 27.59%	16 30.77%
2M+ -- 3M	0 0.00%	1 9.10%	6 20.69%	7 13.46%
> 3M	0 0.00%	2 18.18%	1 3.44%	3 5.77%
Total	12 100%	11 100%	29 100%	52 100%

Pearson Chi² (6) = 8.1237 Pr = 0.229

Hypothesis Six was tested using a model identical to the Probit regression that examined *Hypothesis Four*, with the only difference being the substitution of punitive damages awards for compensatory damages awards. This hypothesis asserted that ‘jurists’ with medical backgrounds would award punitive damages more often than lay ‘jurors’. Although the findings seem rather

intuitive, the results were both surprising and statistically significant ($p < .017$) given the data presented by the Bureau of Justice Statistics⁸⁹ and some other study results. The prior research led me to anticipate that medical and law students would grant punitive damages more often than undergraduate students. The pattern was reversed in this study, however, with undergraduate students (12.5%) assessing punitive damages at five times the rate of the medical and law students (2.53%). It should be further noted that no medical students made a punitive damages award, raising the question of whether they truly did not see wanton negligence or simply pictured themselves in this position at some time in the future. Even though the sample size (awards = 12) was small, the effect was obviously pronounced.

This finding strongly rejects *Hypothesis Six*; calling into question the argument that bench trials with or without medical jurists would be more equitable to plaintiffs. Table 10 summarizes the data for punitive damages awards. Model Five results are shown in Appendix F.

Table 10
Punitive Damages Awarded by Undergraduate vs. Medical and Law Students
N = 159

Scenario One and Scenario Two Data

Punitive Damages Awarded	Medical/Law Students	Undergrad Students	Total
No	77 97.47%	70 87.50%	147 92.45%
Yes	2 2.53%	10 12.50%	12 7.55%
Total	79 100%	80 100%	159 100%

Pearson χ^2 (1) = 5.6606 Pr = 0.017

⁸⁹ See page 79.

Model Six presented a test of *Hypothesis Seven* with a severely bounded Ordinal Probit analysis and a simple crosstabulation of punitive damages awards by lay ‘jurors’ and medical/legal ‘jurists’. Because of the limited number of punitive damages awards (12), the oprobit regression and categorical crosstabulation offered little in the way of empirically legitimate findings; however, the results did offer a glimpse into some interesting possible dynamics among some variables. The full output for Model Six is shown in Appendix F.

The crosstabulation for punitive damages awards by undergraduate and medical/law students did uncover an apparent pattern of difference between the groups, and also strongly hinted at differences between males/females and whites/non-whites. Once again, as in all previous models, however, no identifiable role for political philosophy was demonstrated. Ten of the twelve or 83.3% of the awards came from undergraduate students; and one-third of those awards were more than one million dollars, while the only two awards granted by medical/legal students were less than one million dollars. Again, it must be pointed out that no medical students awarded punitive damages. The crosstabulation suggests that lay jurors would be more likely to award higher levels of punitive damages when they judge a physician to be negligent in a medical malpractice case. This follows the assertion of *Hypothesis Seven*, and the data presented by the previous Bureau of Justice Statistics studies reviewed in Chapter Seven.

Interestingly, the oprobit regression suggests that females and non-whites are more likely to award punitive damages, and while these findings are not significant at the .05 level, females reached $p < .128$ and non-whites reached $p < .108$. Finally, although the crosstabulation showed that the relationship between award amounts and student types are largely due to chance ($p < .549$), the oprobit regression indicates statistical significance of the student type variable ($p < .015$). In any event, the small sample of twelve awards clearly does not offer enough evidence to

posit any true relationships. A larger study sample with more punitive damages awards would be needed to allow any definitive statements to be made regarding the relationship between medical/legal jurists and lay jurors. These results do suggest that *Hypothesis Seven* could be true. Table 11 summarizes these findings.

The findings of both models involving punitive damages raise two interesting questions for future research. Are lay juries motivated by the need to find justice or an intense desire for vengeance when they believe a medical practitioner or institution has committed negligence? Would specialized judicial panels be more objective and serve justice more readily or would the medical panelist try to protect her profession? As far back as 1931, Morris suggested that the motivation for punitive damages in tort cases is often revenge, not justice. Perhaps the revenge motive would be lessened if juries were eliminated in medical malpractice trials.

Table 11
Punitive Damages Awards by Category – Undergraduate vs. Medical and Law Students
N = 12
Scenario One and Scenario Two Data

Punitive Damages Awards	Medical/Law Students	Undergrad Students	Total
< 1M	2 100%	6 60.00%	8 66.67%
1M+ -- 2M	0 0.00%	2 20.00%	2 16.67%
2M+ -- 3M	0 0.00%	2 20.00%	2 16.67%
> 3M	0 0.00%	0 0.00%	0 00.00%
Total	2 100%	10 100%	12 100%

Pearson Chi² (2) = 1.2000 Pr = 0.549

The final model provided a test of *Hypothesis Eight*, which postulated that undergraduate students would be more influenced by attorneys than medical students. All participants in each student group were asked to choose one factor from a list of ten elements that had the most impact on their decision in the case. This list was compressed to seven factors for analysis. The results demonstrated in the crosstabulation supported the hypothesis; with no medical students choosing attorneys as most influential, while 18% of both law and undergraduate students selecting attorneys as the dominant factor in their decision. Correspondingly, 82.61% of medical students chose case facts as most influential, while only 50% of undergraduates indicated that case facts were most important. Since the results of this analysis were statistically significant ($p > .028$), this strongly suggests that jurists with medical backgrounds are more likely to rely on medical facts and law than lay jurors, which should lead to more accurate and equitable decisions in medical malpractice cases.

Table 12

Most Influential Factor in Case Decision -- Undergraduate/Medical/Law Students
N = 159

Most Influential Factor	Medical Students	Law Students	Undergrad Students	Total
Attorneys	0 0.00%	6 18.18%	15 18.75%	21 13.21%
Case Facts	38 82.61%	22 66.67%	40 50.00%	100 62.89%
Medical Expert	0 0.00%	2 6.06%	3 3.75%	5 3.14%
Non-Medical Witnesses	1 2.17%	0 0.00%	4 5.00%	5 3.14%
Defendant Physicians	5 10.87%	2 6.06%	12 15.00%	19 11.95%
Jury Instructions	1 2.17%	0 0.00%	5 6.25%	6 3.77%
Severity of Injury	1 2.17%	1 3.03%	1 1.25%	3 1.90%
Total	46 100%	33 100%	80 100%	159 100%

Pearson χ^2 (6) = 22.9735 Pr = 0.028

Subjective Observations

In addition to the empirical analysis of data, an important aspect of the experimental process was the subjective assessment of participant interest, behavior and attitudes during the two hour and fifty-minute mock trial video, and a recording of their impressions about the events, people or procedures of the trial itself. This facet of the experiment proved to be very enlightening.

There were two attitudes and behaviors that were shared between all three study groups. Perhaps the most prominent commonality was jury fatigue. It was noted in all thirteen sessions that participants quickly tired of the process at about the two-hour mark of the video, and showed their impatience at the long and repetitive testimony. One undergraduate summed up her feelings thusly: “Jury duty is a tedious process and mental fatigue after a certain period of deliberation can affect a juror’s decision.” It was obvious from watching undergraduates that after a certain point a majority of them almost completely disengaged from the process; either by writing notes, texting or actually falling asleep. Virtually all of them squirmed in their seats and did not look at the screen much of the time.

One law student commented that he “...had a hard time staying focused and I zoned in and out. Made me wonder about what happens in real trials that are much longer.” Unfortunately, three of the four law student sessions closely resembled the undergraduate sessions, where one law student actually fell asleep during the video, and others diverted their attention by talking and laughing throughout the proceeding.

While medical students were considerably more attentive throughout their four sessions than the other two student groups, they also displayed their anxiousness and restlessness by constantly shifting in their seats and drifting off into a daze. One medical student expressed that the process was ‘tedious’, another said that he “...found the case to be interesting, yet drawn out.” Virtually all medical students vocalized their lack of focus at the end of the trial in the debriefing sessions.

Each group also expressed strong and largely negative opinions regarding the behavior or competence of the attorneys which affected their evaluation of the case. For example, one undergraduate opined that “...the attorneys for the plaintiff were too emotional;” another disliked

the plaintiff attorneys because "...they were unorganized and way too wordy;" and a third said that "...the attorney for the plaintiff was not effective because some things she said were not consistent with the testimony given." On the positive side, an undergraduate "...thought both the defendant and plaintiff attorneys made a great argument." Another student said that "...the prosecutor (plaintiff attorney) was very persuasive due to a particular rhetoric she used to her advantage." In general, however, the majority of the comments regarding the plaintiff attorney were negative, perhaps swaying their decisions against the plaintiff.

Law students were predictably critical of attorney demeanor and strategies. One law student captured the essence of his cohort's criticism by stating that he "...felt as though both of the attorneys were unprepared and not as skilled as they should have been. Neither of the teams did a good job with theme, presenting a believable story or presenting me with a story that was easy to follow. The lack of clarity from both sides weighed heavily on my decision."

Attorney criticism from medical students centered on their lack of medical knowledge rather than their procedural or communication skills. Two comments summed up their assessment of the attorneys. The first indicated that "...I am highly irritated by the behavior of the attorneys, especially those of the plaintiffs – asking the defendant to read from the evidence or answer yes or no to questions about such evidence is a complete waste of judge and jury's time. Also, the imperfections of the justice system become evident when one realizes that a convincing 'performance' by an attorney on either side of the case could sway a jury of people who are probably not well educated in the practice of medicine." A second medical student observed that "...it was evident that the lawyer for the plaintiff had no medical knowledge and so she herself didn't understand the answers of the physicians. She is precisely the reason why non-medical people should not be involved in medical malpractice cases."

A major difference in perceptions was evident from observing students during the sessions and reading their comments on the questionnaire. It was evident that undergraduate students generally volunteered to participate because of the compensation, and had only slight interest in actually adjudicating a medical malpractice case. This cohort was probably more representative of what might be observed in real jury-eligible citizens than the other two student groups. Their focus, when directed, was on the human element of the case and the injury itself. Unfortunately, undergraduate student body language and lack of attention during the video seemed to indicate their general disinterest in the proceeding. If they are reasonable proxies for jury-eligible citizens at-large, the implication is that lay juries are not fully engaged in evaluating case facts, and are more likely to miss case subtleties than medically trained jurists.

The focus of law students was squarely on the court procedures and attorneys, and their evaluation of the case seemed more affected by how the attorneys performed rather than the actual medical facts. The nature of the case seemed inconsequential; law students were unmistakably more enamored by the process than the substance of the litigation.

Medical students were extremely engaged in the process and were decidedly focused on the technical and medical aspects of the case. Their written and verbal comments during the debriefing sessions were directed toward understanding the actions taken or not taken by the defendant physicians and the lack of medical knowledge demonstrated by the attorneys. The notes written by medical students on the questionnaire were much lengthier than the other two student groups, and their expressions of frustration over the process were palpable. This, of course, raises a question about whether they were more vigilant toward the medical facts or were simply victims of professional capture.

It should be noted that most experiments encounter a problem of slippage between the ‘laboratory’ and real world. This study was no different in that the participants, as proxies, were not wholly representative of practicing attorneys or physicians, and the medium used was not a court room, but rather a simplified mock trial video with imperfections and omissions that might have affected participant decisions. In addition, ‘verdicts’ were individual decisions that might have been altered in the group dynamic of a jury room. Further, a case involving a more complex medical issue than Diabetes may have revealed a more extreme difference between study cohorts. Notwithstanding the study’s imperfections, however, it is the researcher’s opinion that some meaningful information was obtained from the study.

Perhaps the most important revelation to be gleaned from the experiment was the common conclusion reached by all three student groups regarding the efficacy of jury trials of this nature. One medical student stated that she “...felt that in many ways the jury is under-prepared for this type of judgment call as there are many factors and issues which are not cut and dry, such as a standard history taking approach, labs, circumstances leading a doctor to make a decision.” A most insightful opinion offered by an undergraduate student may have captured the essence of the tort reform debate, however. He said that “...if the subtle, nuanced nature of this case is at all representative of the trial litigation, I’m not confident in the ability of a jury composed of the general public to rationally assess the case and return an appropriate verdict.”

Table 13
Summary of Study Results

Hypothesis	Results	Implications
H₁ : Decisions of ‘jurists’ with medical backgrounds will coincide with the correct case facts at a higher rate than lay ‘jurors’ without legal or medical backgrounds.	Reached Correct Decision: Medical Students = 74% Undergraduates = 64% p = .502	While the results were in the predicted direction, there is essentially an equal probability that the results would be different in other experimental samples.
H₂ : Decisions of ‘jurists’ with medical backgrounds will coincide with the correct case facts at a higher rate than ‘jurists’ without medical backgrounds.	Reached Correct Decision: Medical Students = 74% Law Students = 67% p = .502	The results followed the predicted pattern; however, there is an equal probability that the outcome in other sample groups would be different.
Serendipitous Finding	Reached Negligent Decision: Males = 17% Females = 44% p = .000	This result confirms the results of previous research that females are generally more sympathetic to plaintiffs and more influenced by extra-legal factors.
H₃ : Decisions in cases utilizing neutral expert witnesses will coincide with the correct case facts at a higher rate than cases utilizing pro-plaintiff/ pro-defendant expert witnesses.	Reached Negligent Decision: Partisan Expert = 39% Neutral Expert = 33% p = .554	The result was in the wrong direction and is a seemingly a nonsense finding since logically no one would prefer a partisan expert witness to a neutral one.
H₄ : Compensatory damages will be awarded more often by lay ‘jurors’ than ‘jurists’ with a medical background.	Compensatory Damages: Medical Students = 26% Undergraduates = 36% p = .502	This result coincided exactly with the findings of H ₁ since every participant who voted negligent awarded compensatory damages.
H₅ : Compensatory damages awards by lay ‘jurors’ will be higher than damages awards by ‘jurists’ with medical backgrounds.	Awards: < 2M / > 2M Med/Law = 100% / 0 % Undergrads = 76% / 24% p = .229	These results were in the predicted direction; while not statistically significant, they were suggestive of a true finding.
H₆ : Punitive damages will be awarded more often by medically trained ‘jurists’ than lay ‘jurors’.	Punitive Damages: Med/Law Students = 2.5% Undergraduates = 12.5% p = .017	The results rejected the H ₆ and differed from previous research. No medical students made awards, suggesting either a clearer understanding of true negligence or professional capture.
H₇ : Punitive damage awards by lay ‘jurors’ will be higher than punitive damage awards by medically trained ‘jurists’.	Awards: < 1M / > 1M Med/Law = 100% / 0 % Undergrads = 60% / 40% p = .549	While the results were in the predicted direction, the sample size was too small to form any meaningful or valid conclusions.
H₈ : Lay ‘jurors’ will be more influenced by attorneys than medically trained ‘jurists’.	Attorneys No.1 Factor: Medical Students = 0% Undergraduates = 19% p = .028	This supports H ₈ , and suggests that medically trained jurists might be less susceptible to manipulation in medical malpractice trials.

CHAPTER 9

Discussion and Recommendations

Medical malpractice case adjudication is a much more complex process than is generally recognized by public policy makers. To most people outside the courtroom the tort process seems easy enough; the judge or jury simply discovers the facts and applies legal criteria to those facts to determine liability, if any. Unfortunately, there are many sub rosa influences that generally confound the proceedings and unduly influence case outcomes. Factors such as personal attitudes, biases, experience or emotion are among the most recognized of those influences, and they have already been discussed at length in this paper. But they are only part of the story. Other complicating factors are also prevalent; such as the legal standards to be used in judging a case and legal exceptions that may mitigate the case facts (Keating, 2001).

For example, in the medical malpractice/product liability arena, cases involving an inherently dangerous activity such as pharmaceutical manufacturing and distribution⁹⁰ may require the application of the principle of strict liability, which automatically fixes causation and responsibility regardless of whether or not negligence is involved or whether the endeavor has any economic or social value. When these activities result in harm to users, the responsible parties are automatically found to be at fault because of the nature of the product itself. Unfortunately, most cases are not that straightforward, and as discussed throughout this paper, typically involve the fixing of causation and linking of the injury to the negligence of a specific individual or organization. This is where full scale chaos normally enters the picture.

⁹⁰ Example: *Love v. Wolf*, 226 Cal.App.2d 378, 38 Cal. Rptr. 183 (Cal .App., 1964).

Negligence is not so readily definable because it involves a much more complex set of conditions and legally subjective influences. Assessing causation is often difficult because the criteria are voluminous, and while seemingly simple and well-defined, are subject to manipulation and obfuscation by the parties involved. In addition, the mental filters of jurists and/or fellow citizens through which cases are evaluated are so disparate that outcomes are bound to be unpredictable and inconsistent.

As discussed earlier in depth, the theory of negligence is based upon the concept of the ordinary or due care that would be exercised by a reasonable person in any given situation. Adjudication is based on whether or not one or both of the parties acted carelessly or irresponsibly, thus contributing to the injury. Standards of behavior for the reasonable person are based on the community's judgment of how a person *should* act, not on how one *might* act.

Determining causation using the reasonable person standard appears clear cut enough on the surface, but the myriad of concepts, conditions and variables embodied in the standard are often both technical and perplexing. For instance, in an emergency situation, one cannot generally be held to the standard⁹¹ and the standard is altered when an event involves children⁹². However, physical disability⁹³ or mental deficiency⁹⁴ does not necessarily exempt individuals from the standard; those conditions are simply circumstances to be considered in adjudication. Special knowledge⁹⁵, professional qualifications⁹⁶, beginner's experience⁹⁷, or other distinctive circumstances that involve professional canons⁹⁸ or informed consents⁹⁹ present more twists to

⁹¹ Example: *Pacetti v. Central of Ga. Ry. Co.*, 6 Ga App. 97, 64 S.E. 302 (Ga., 1909).

⁹² Example: *Wittmeier v. Post*, 78 S.D. 520, 105 N.W.2d 65, 97 A.L.R.2d 853 (1960).

⁹³ Example: *Law v. Hemmingsen*, 249 Iowa 820, 89 N.W.2d 386 (1958).

⁹⁴ Example: *Banks v. Dawkins*, 339 So.2d 566 (Miss. 1976).

⁹⁵ Example: *Martin Imports v. Courier-Newsom Exp., Inc.*, 580 F.2d 240 (7th Cir. 1978).

⁹⁶ Example: *Tartera v. Palumbo*, 453 S.W.2d 780 (Tenn., 1970).

⁹⁷ Example: *Boise Payette Lumber Co. v. Larsen*, 214 F.2d 373, 46 A.L.R.2d 1038 (9th Cir.1954).

⁹⁸ Example: *Bruni v. Tatsumi*, 46 Ohio St.2d 127, 346 N.E.2d 673 (Ohio 1976).

⁹⁹ Example: *Mohr v. Williams*, 95 Minn. 261, 104 N.W. 12 (Minn. 1905).

the standard because they generally either intensify or rearrange the boundaries of reasonableness.

In addition, the judgment process is further muddled by rules and qualifiers such as the role of specific statutes¹⁰⁰; custom¹⁰¹; duties to warn¹⁰², give notice¹⁰³ or not make a situation worse¹⁰⁴; and obligations to control the conduct of others¹⁰⁵. Distinctive rules also apply to those who have special relationships with others: social hosts¹⁰⁶ or invitees¹⁰⁷, for instance. There are literally dozens of other rules or factors that confound the fault-finding process. The most prominent of these include intervening or multiple forces¹⁰⁸, contributory negligence¹⁰⁹, comparative negligence¹¹⁰, and the express assumption of risk¹¹¹. These examples represent only a small sample of case qualifiers that make lay jury adjudication an extremely convoluted endeavor. Based on the responses of participants in this research, the judge's instructions to the jury are of little help in engendering understanding of the legal standards to be applied.

In fact, the plethora of guidelines and principles foisted on jurists and juries has the potential to confuse the process to the point that identifying causation and applying judgment standards has become a subjective case-by-case game of chance. This raises the hackles of tort reformers, who argue that the process is so convoluted and imprecise that there are no rules at all. System complexity, of course, is not a recent discovery. A candid Judge Adkins of the Maryland Court of Appeals expressed the fickle nature of the negligence standard almost ninety

¹⁰⁰ Example: *Stearns v. Smith*, 149 Me. 127, 99 A.2d 340 (Me., 1953).

¹⁰¹ Example: *Trimarco v. Klein*, 56 N.Y.2d 98, 451 N.Y.S.2d 52 (N.Y., 1982).

¹⁰² Example: *Harper v. Herman*, 499 N.W.2d 472 (Minn., 1993).

¹⁰³ Example: *Gordon v. American Museum of Natural History*, 67 N.Y.2d 836, 501 N.Y.S.2d 646 (N.Y., 1986).

¹⁰⁴ Example: *Farwell v. Keaton*, 396 Mich. 281, 240 N.W.2d 217 (Mich., 1976).

¹⁰⁵ Example: *Brady v. Hopper*, 570 F.Supp. 1333 (District Court, Colo., 1983).

¹⁰⁶ Example: *Coulter v. Superior Court*, 21 Cal.3d 144, 145 Cal. Rptr. 534 (Cal. 1978).

¹⁰⁷ Example: *Banks v. Colonial Stores, Inc.*, 117 Ga. App. 581, 161 S.E.2d 366 (Ga. Appeals Ct., 1968).

¹⁰⁸ Example: *Coles v. Jenkins*, 34 F.Supp.2d 381 (W.D.Va., 1998).

¹⁰⁹ Example: *Michelsen v. Upton*, 175 Neb. 743, 123 N.W.2d 850 (Neb., 1963).

¹¹⁰ Example: *Wasylyow v. Glock, Inc.*, 975 F.Supp. 370 (D. Mass., 1996).

¹¹¹ Example: *Santiago v. Clark*, 444 F.Supp. 1077 (D.C. W.Va. 1978).

years ago. In *Schell v. United Railways & Electric Co.*¹¹², a case involving an automobile-street car collision in Baltimore in January, 1922, the proceedings became so exasperating that Adkins felt compelled to state in his opinion that:

...The testimony has been given at wearisome length because, as has been said in a number of cases, negligence is essentially relative and comparative and depends upon the circumstances out of which it grows. As these circumstances necessarily vary in their relation to each other, under different surroundings they inevitably change their original significance and import. Hence it is intrinsically true that those things which would not under one condition constitute negligence would, on the other hand, under a different, though not necessarily an opposite, condition, most unequivocally indicate its existence. The existence of negligence is therefore to be sought for in the facts and surroundings of each particular case... (*Schell v. United Railways & Electric Co.*, 1922, 1).

This confusion and frustration is even more prevalent today because the intervening variables are both more numerous and sophisticated, which most certainly call into question the veracity of jurisprudential proficiency. It is precisely this lack of precision and alleged distortion of justice in medical malpractice cases that has fueled the tort reform movement for almost five decades. This, of course, has prompted civil justice system critics to claim that medical practitioners cannot be fairly judged by lay juries, and that more erudite judges must be employed in the adjudication of medical malpractice disputes.

Given the bewilderment that the negligence concept engenders, some moderate reformists have suggested that the most logical step is to abandon the negligence standard altogether in favor of the no-fault system that undergirds the worker's compensation program.

¹¹² 144 Md. 527, 125 A. 158 (Md., 1924).

This would certainly eliminate jury inconsistency and improve the efficiency of case processing; however, it would also forsake one of the main goals of tort law – deterrence of bad behavior. As a result, most reformers believe that the negligence concept should be retained, while changing the adjudication methodology by replacing lay jurists with specialized judges or panels. This leads to the question, would specialized judges be better equipped by education, experience and expertise to mete out justice than lay jurors?

Rottman (2000) addressed that question succinctly in an analysis of the new specialized court movement. He opined that specialized courts could achieve higher levels of therapeutic justice because they facilitate “...judge-to-litigant interactions that the public experiences as fair and just (26)”, thus enhancing the trustworthiness of the justice system itself. Rottman granted that specialized knowledge and unique personal attributes are useful in improving case outcomes. More importantly however, he asserted that judges in these courts are no different than those in courts of general jurisdiction; their success depends upon how well they communicate objectivity and respect for plaintiffs and defendants. His conclusion was that it is not the type of the court that is determinant; rather it is the expertise and skill of the judges that matter.

This study attempted to address three specific questions germane to judicial proficiency. Question One asked if there are cognitive differences between medically trained and non-medically trained individuals that might affect the outcome of medical malpractice cases. The results of our quasi-experiment suggest that there may very well be perception differences between medically trained individuals and other groups without health care related backgrounds. Model results for *Hypotheses One* and *Two* demonstrated the predicted variances between the proxy groups, with as much as a 15% difference in the case outcomes between medical students

and undergraduate students. And while the model failed to reach statistical significance, quite possibly because of an inadequate sample size, the disparity in case outcomes begs for further exploration.

If a 15% correction could be made in medical malpractice case outcomes through medical jurist adjudication, it seems reasonable to assume that not only would equity be enhanced, but there might be downward pressure on medical malpractice insurance rates. Further, if there is no real disparity between groups, and outcomes would be essentially the same regardless of how cases are tried, data from prior studies show that case processing time would be cut by more than a year, substantially improving system efficiency and reducing the logistics and cost of jury empanelment.

The second question inquired whether or not there might be meaningful differences in the amount of compensatory or punitive damages awarded between the three types of study participants. The findings from Model Three substantiated the premise that lay ‘jurors’ are more likely to award higher amounts of compensatory damages than medically trained ‘jurors’; and while the effect was not statistically significant, it was in the hypothesized direction, and was somewhat suggestive of a real effect ($p < .229$). Again, it appears that the sample size was too small to elicit a statistically valid result.

The results for punitive damages awarded were both contrary to the hypothesized effect and partially statistically significant. Based on the prior research findings of the Bureau of Justice Statistics¹¹³, we expected that medically/legally trained individuals would assess punitive damages more often and in higher amounts than those with no specialized expertise. The results were reversed. More undergraduate students made punitive damages awards than the combined medical/law student cohort ($p > .017$), and the amounts awarded by undergraduate students were

¹¹³ See page 72.

clearly higher, although the small number of awards (12) did not produce statistical significance. One could interpret those results as an indication that lay jurors are more extreme in their judgments about how to punish medical negligence, that medical judges are more understanding of complicating circumstances, or are more protective of their professional colleagues. More work is certainly warranted in this area.

The final question asked was whether or not there were differences in how the study groups were affected by attorneys, witnesses, jury instructions, and/or sympathy for the plaintiff. The results of Model Seven were definitive and statistically significant ($p > .028$). Undergraduate students were highly influenced by the attorneys in the case and medical students were more influenced by case facts. The implications seem clear. Lay juries are likely to be more susceptible to manipulation by attorney strategy and tactics, which make jury verdicts more vulnerable to error.

While this research did not produce any definitive results that might contribute to a resolution of the tort reform debate, it did divulge some relationships that should be fertile ground for future research. The major flaws in this study were three-fold. First, proxies were used instead of real-life actors in the medical malpractice milieu. A future study should attempt to utilize practicing physicians, practicing lawyers, and jury-eligible citizens in the research. It would involve cooperation from state and/or local medical and legal societies, and a compensation rate at perhaps \$250 - \$300 per individual for a four hour period of time. The second flaw was the medium used. While the video contained good information, it looked too much like a staged amateur production at times. Stronger and more complex scenarios with clear-cut evidence of negligence or non-negligence could be developed with the help of both legal and medical professionals, and taping could be done in a more professional manner. The

third flaw was clearly an inadequate sample size. A follow-up study should attempt to gather a sample of 100 participants in each study group.

The cost to conduct a project of this magnitude would likely reach \$150,000, and federal funding would be imperative. The project would also likely take two or more years to complete. However, this is a relatively small investment for public policy makers to gain valuable information about how the justice system functions in product liability and medical malpractice cases. If the data gleaned from this kind of project reveals genuine differences in perceptions between ‘real world’ actors, and substantiates that physicians and attorneys reach the correct decisions more often than lay juries, the results of this kind of study could be a precursor to the health court demonstration projects that some states clamor for and Congress seems so reluctant to pursue.

Based upon the literature reviewed and results of this research project, it seems apparent that there are indeed perceptual differences between individuals from different experiential and training backgrounds. Accordingly, I recommend that the focus of future tort reform research be directed toward how a health court structure that includes specialized panels of three jurists would function as compared to lay juries. A three judge panel that includes a physician, judge and erudite lay person would seem to offer the cognitive diversity of a lay jury while incorporating the scientific and technical expertise necessary to decide complex medical malpractice cases, thus introducing rational choice back into the equation and enhancing jurisprudential proficiency. As a result of more consistent and rational decisions, it would be expected that medical practitioners will be more willing to openly discuss errors, which should lead to less defensive medicine and improved patient safety.

In 1993, Thomas Metzloff¹¹⁴ wrote that “...medical malpractice has proven to be the law’s Vietnam – an unpleasant quagmire of unending skirmishes and full scale engagements spread across a shifting battlefield (Metzloff, 1993; 1169).” Those words have certainly been prophetic, and little has happened over the past sixteen years to discredit his assessment. In fact, the situation has only gotten worse. Metzloff based his musing on two rounds of medical malpractice crises in which lawsuits and professional liability insurance premiums spiked in two distinct cycles in the early 1970s and mid 1980s. Had he waited until the turn of the century, he would have seen the emergence of the third cycle that is currently in progress (Mello, 2006) (Darr, 2004a, b).

Unfortunately, it seems as if the political debate over medical malpractice tort reform is destined to continue in perpetuity as a result of two seemingly permanent realities. First, it certainly appears that the primary driver of the tort reform issue is as much economic as it is legal or philosophical. Because the insurance profitability cycle that provides so much of the fuel for discontent is not likely to go away, the economic balancing inherent in those cycles will probably continue to produce periodic volatility in medical malpractice insurance premiums. Secondly, the liberal and conservative combatants in the debate are not likely to see eye-to-eye on the effectiveness of either the existing tort system or some future new construct in achieving the primary objectives of deterrence, distributional equity, economic efficiency or jurisprudential proficiency. Accordingly, the debate will surely wax and wane indefinitely.

This impasse could be broken, however, if reliable and unbiased evidence can be presented that clearly demonstrates that a major reform like health courts is superior to the current civil justice system for adjudicating medical malpractice disputes. This evidence could

¹¹⁴ Thomas B. Metzloff is a Harvard Law School graduate who has been a Professor of Law at Duke University Law School since 1992.

come through further empirical research and ultimately health court demonstration projects in selected states.

While the primary focus of tort reform research has been on the effects of reform on the insurance industry and medical malpractice premiums, Mello (2006, 15) made a very germane observation regarding the efficacy of the current civil justice system that will surely influence the nature of the debate over the next decade. In her comments regarding implications for policy-makers, Mello concluded by saying:

...A compelling body of evidence establishes that the liability system performs poorly as a mechanism for directing compensation to injured patients in a thorough and equitable fashion, deterring medical error, and fostering an environment that supports patient safety initiatives such as adverse event reporting. Although they present more political challenges, reform proposals such as early offer programs and health courts merit serious consideration and objective assessment.

It is clear that tort reform legislation is destined to be evolutionary, not revolutionary because of the counterbalancing power of the political forces on both sides of the issue. Whether or not the process will ever extend beyond conventional 'reforms' to real system reform is anyone's guess. Will reform of the current civil justice system or replacement by a new medical adjudication scheme produce more fairness and efficiency? Will the principles of fair compensation and deterrence be better served? Perhaps this study can ignite some interest in follow-up research that might produce answers to those questions.

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APPENDIX A

Medical Malpractice Mock Trial/Juror Questionnaire

1. Age _____
 2. Gender :
Female _____ Male _____
 3. Race/Ethnicity:
Non-White _____ White _____
 4. How do you classify your political philosophy?
Conservative _____ Liberal _____ Moderate _____
 5. Have you or any family member ever been involved in medical malpractice litigation?
Yes _____ No _____
-

6. A. Did Plaintiff Jones incur injuries, damages or losses?
Yes _____ No _____
B. Was Dr. Murray negligent in his treatment of James Jones?
Yes _____ No _____
C. Was Dr. Murray's negligence, if any, the cause of Plaintiff Jones' injuries, damages or losses?
Yes _____ No _____
7. A. Did Plaintiff Jones incur injuries, damages or losses?
Yes _____ No _____
B. Was Dr. Kuhn negligent in his treatment of James Jones?
Yes _____ No _____
C. Was Dr. Kuhn's negligence, if any, the cause of Plaintiff Jones' injuries, damages or losses?
Yes _____ No _____

8. If you found that Dr. Murray, Dr. Kuhn or both physicians' treatment of James Jones was negligent, please answer the following question; if you found no negligence by either Dr. Murray or Dr. Kuhn, please skip to question #10.

Select the range that seems to be the most appropriate amount of **compensatory damages** that should be awarded to the plaintiff in the case.

Less than	\$ 500,000 _____	\$ 500,001 – \$1,000,000 _____
	\$1,000,001 – \$1,500,000 _____	\$1,500,001 – \$2,000,000 _____
	\$2,000,001 – \$2,500,000 _____	\$2,500,001 – \$3,000,000 _____
More than	\$3,000,000 _____	

9. If you found that Dr. Murray, Dr. Kuhn or both physicians' treatment of James Jones was negligent, please answer the following question; if you found no negligence by either Dr. Murray or Dr. Kuhn, please skip to question #10.

Was the medical negligence in this case so egregious that the defendant(s) should be punished further through the awarding of punitive damages?

Yes _____ No _____

If so, select the range that seems to be the most appropriate amount of **punitive damages** that should be awarded to the plaintiff in the case.

Less than	\$ 500,000 _____	\$ 500,001 – \$1,000,000 _____
	\$1,000,001 – \$2,000,000 _____	\$2,000,001 – \$3,000,000 _____
	\$3,000,001 – \$4,000,000 _____	\$4,000,001 – \$5,000,000 _____
More than	\$5,000,000 _____	

10. Which of the following people or factors was **most** influential in your verdict? (**Check One**)

Attorney(s) for the Defendant – Mr. O'Rourke/ Mr. Reynolds _____

Attorney(s) for the Plaintiff – Ms. Matthew/ Ms. Finch _____

Case Facts _____

Medical Expert Witness – Dr. Temple _____

Economic Expert Witness – Dr. Casey _____

Dr. Murray's Testimony _____

Dr. Kuhn's Testimony _____

Continuity Clinic Appointment Secretary – Ms. Williamson _____

Judge's Instructions to the Jury _____

Severity of the Plaintiff's Injury _____

11. Which of the following people or factors was **least** influential in your verdict? (**Check One**)

Attorney(s) for the Defendant – Mr. O'Rourke/ Mr. Reynolds _____

Attorney(s) for the Plaintiff – Ms. Matthew/ Ms. Finch _____

Case Facts _____

Medical Expert Witness – Dr. Temple _____

Economic Expert Witness – Dr. Casey _____

Dr. Murray's Testimony _____

Dr. Kuhn's Testimony _____

Continuity Clinic Appointment Secretary – Ms. Williamson _____

Judge's Instructions to the Jury _____

Severity of the Plaintiff's Injury _____

12. Please briefly express any thoughts or impressions you have about the events, people or procedures of the trial itself, and/or jury responsibility and participation.

APPENDIX B

Instructions to the Jury

Instruction 1

- The parties to this lawsuit are the Plaintiff, Jane Jones, and the Defendants, Richard Murray, M.D. and Kevin Kuhn, M.D.
- Plaintiff Jones claims that Defendants Murray and Kuhn negligently rendered medical care to her husband, James Jones on July 23, 2005, causing his death.
- Defendants Murray and Kuhn deny that they negligently rendered medical care to James Jones and deny that their negligence caused James Jones' death.

Instruction 2

- Plaintiff Jones has the burden of proving her claim by a preponderance of the evidence.
- To prove something by a “preponderance of the evidence” means to prove that it is probably more true than not.
- If Plaintiff Jones fails to meet her burden of proof or if the evidence weighs so evenly that you are unable to say that there is a preponderance in her favor, you must reject her claim.

Instruction 3

- Evidence may be either direct or circumstantial.
- Circumstantial evidence is the proof of facts or circumstances from which the existence or nonexistence of other facts may reasonably be inferred.
- All other evidence is direct evidence.
- The law makes no distinction between the effect of direct and circumstantial evidence.

Instruction 4

- You must not be influenced by sympathy, bias or prejudice, for or against any party in this case.

Instruction 5

- To find in favor of Plaintiff Jones on her claim of negligence against Defendants Murray and Kuhn, you must find that she has proven each of the following by a preponderance of the evidence:
 1. Defendants Murray and Kuhn acted negligently; and
 2. Defendants Murray and Kuhn's negligence was the cause of Plaintiff Jones' damages or losses
- Unless you find that Plaintiff Jones has proven each of these elements by a preponderance of the evidence, your verdict must be in favor of Defendant Murray and Dr. Kuhn.

Instruction 6

- A physician is negligent when the physician does an act that a reasonably careful physician would not do or fails to take an act that a reasonably careful physician would do.
- To determine whether a physician's conduct was negligent, you must compare that conduct with what a physician having and using the knowledge and skill of physicians practicing in the same field of practice at the same time would or would not have done under the same or similar circumstances.

Instruction 7

- A physician does not guarantee success in his treatment of a patient.
- An unfortunate or unwanted outcome is not, by itself, evidence of negligence, unless you find that the outcome occurred because the physician failed to exercise reasonable care under the circumstances.

Instruction 8

- You are the sole judges of the credibility of the witnesses and the weight to be given their testimony.
- You should take into consideration their means of knowledge, strength of memory, opportunities for observation, the consistency of their testimony, their motives, their bias, their demeanor on the witness stand, and all other facts and circumstances that affect the credibility of the witness.
- Based on these considerations, you may believe all, part, or none of a witness's testimony.

Charge to the Jury – Dr. Murray

- You are charged with answering the following questions, based solely upon the evidence presented in court and the law as contained in my instructions:
 1. Did Plaintiff Jones incur injuries, damages or losses?
 2. Was Dr. Murray negligent in his treatment of James Jones?
 3. Was Dr. Murray's negligence, if any, the cause of Plaintiff Jones' injuries, damages or losses?

Charge to the Jury – Dr. Kuhn

- You are charged with answering the following questions, based solely upon the evidence presented in court and the law as contained in my instructions:
 1. Did Plaintiff Jones incur injuries, damages or losses?
 2. Was Dr. Kuhn negligent in his treatment of James Jones?
 3. Was Dr. Kuhn's negligence, if any, the cause of Plaintiff Jones' injuries, damages or losses?

APPENDIX C

Legal Definitions

Compensatory Damages

- The amount of money adequate to compensate for any actual damages caused by the party against whom they awarded. Also awarded for things that are harder to measure, such as pain and suffering.

Punitive Damages

- The purpose of punitive damages is to punish a defendant and to deter a defendant and others from committing similar acts in the future. The Plaintiff has the burden of proving that punitive damages should be awarded, and the amount, by a preponderance of the evidence.
- Punitive damages may be awarded only if defendant's conduct was malicious, or in reckless disregard of plaintiff's rights.
- Conduct is malicious if it is accompanied by ill will, or spite, or if it is for the purpose of injuring another.
- Conduct is in reckless disregard of plaintiff's rights if, under the circumstances, it reflects complete indifference to the safety and rights of others.

APPENDIX D

Medical Malpractice Mock Trial Debriefing Outline

After participants have completed viewing the Mock Trial video and completed their questionnaires, the researcher will fully explain the nature of the project and the purpose for using ‘jurors’/ ‘jurists’ with (1) just a legal background (2) just a medical background, and (3) no advanced training in either law or medicine.

1. There are many critics of the civil justice system of the United States. Those critics claim that the system is ineffective and inefficient in settling complex product liability and medical malpractice disputes because jurors cannot fairly evaluate evidence and because they are often swayed by emotion rather than logic.
2. As a result of the inequities of the present system, these critics have proposed that product liability and medical malpractice cases be adjudicated by specialized Health Courts that replace lay juries with judges who have both a legal and medical background; and that expert witnesses engaged by the plaintiff/defendant be replaced by neutral, court appointed professionals drawn from a qualified pool of medical experts.
3. The reasoning behind specialized Health Courts is that qualified ‘medical’ judges will render decisions that achieve greater equity, efficiency, impartiality and justice for all parties in these kinds of legal disputes than those rendered by lay jurors.
4. Accordingly, a sample of fifty fourth-year medical students, fifty third-year law students, and one-hundred undergraduate students were chosen to represent the three test groups. Twenty-five of the medical students, law students and undergraduate students were shown a mock trial in which the evidence demonstrates negligence on the part of the physician(s); and an equal number were shown a mock trial in which the evidence demonstrates no-negligence on the part of the physician(s). Further, twenty-five undergraduate students were shown the non-negligent scenario with instructions that the expert witnesses were engaged by the plaintiff and defendant; and a similar number of undergraduate students were shown the same scenario with instructions that the expert witnesses were neutral experts engaged by the court.
5. The objective of the study is to see if there were cognitive differences in reasoning by the three groups, and if ‘juror’/ ‘jurist’ verdicts were swayed by factors other than the evidence presented in each scenario.
6. The results of the study will be detailed in a Doctoral Dissertation, the purpose of which is to provide information that might be useful to the Health, Labor, Education and Pensions Committee of the United States Senate as it considers whether or not to fund state demonstration projects testing the efficacy of Health Courts.

APPENDIX E

Medical Malpractice Mock Trial Participant Comments

Undergraduate Students – Session 1: Scenario One

- I thought both the defendant and the plaintiff attorney's made a great argument. However, I feel the plaintiff's case was presented with a compelling testimony that had a reasonable cause for negligence. Although I didn't feel the monetary value asked was appropriate, I gave a lesser amount.
- The simple appeal to emotion shifted the attention away from logic in regards to the plaintiff's case. Had she retained testimony from other witnesses verifying Mr. Jones' observation, it would have been more believable. The addition of the secretary was extremely helpful to the defendant's case. Also interesting was the emotional side presented by females, and that of the factual evidence by non-emotional white males.
- I had trouble choosing a verdict. Both attorneys had very convincing evidence however I think what convinced me most was hearing Dr. Murray's testimony and the evidence note from the doctor's visit.
- I feel that both Dr.'s did their job very well. Yes, it is sad that Jim Jones died but it was of no fault of either Dr. I also think that Mrs. Jones was being untruthful in her statements.
- Based on the "Instructions to the Jury" as well as the simplicity of the case facts, I feel that the Defendants are not liable or guilty. The doctors were candid and honest in their responses. The doctor asked all the right questions, they cannot be liable for undeclared symptoms resulting in injury.
- While the plaintiff's ordeal was tragic, there was not a "preponderance of the evidence" indicating negligence. As the defendant's attorney said in his closing statement, it is very highly improbable that Dr. Murray would make up symptoms that were never expressed by the patient or his wife.
- The trial was in depth and handled well. Both lawyers were capable and preformed well. One fact that struck me and greatly influenced my decision was the fact that Mr. Jones had gone to the ER before without first seeing the doctor in regards to muscle tears, yet he was not taken to the ER when he was so weak he couldn't walk. Instead he and his wife waited a few days to go to the doctor. Those facts simply do not add up and helped sway my opinion.
- Although Plaintiff Jones had a big loss, it seems like her reason to sue was the wrong reason. I wonder if her husband did get life insurance, would she still sue for malpractice. I think it is hard to prove malpractice with the many variables involved.

- I felt like the Defense attorneys, Mr. O'Rourke and Mr. Reynolds could have focused more on what a physician's actual job description is. It is not to guess or assume possible diagnosis when certain symptoms are present.
- The trial was very long and repetitive. The mock trial jurist questionnaire's question about political orientation should have an "other" category. I identify as a socialist, not a liberal.
- I thought the case was interesting but felt that if what the plaintiff was saying was true, that her husband was so deathly ill that she would have taken Mr. Jones to the hospital. This also made me not understand or believe her recollection of the doctor visit. I also believe that the doctor would not ignore what the wife had said.
- Jury duty is a tedious process and mental fatigue after a certain period of deliberation can effect a juror's decision.
- I feel the case came down to the information provided to Dr. Murray. The plaintiff failed to prove she did indeed inform Dr. Murray of the urination, dehydration, and weight loss. When it comes down to it she has more to gain from her story that she did provide the information and I doubt the doctor forgot to record vital information to Mr. Jones case.
- If the diagnosis of diabetes was so obvious and the husband/wife knew it was something that ran in the family, they should have been watching out for the signs or asked specifically about it. You can't refuse to take personal responsibility for yourself and then blame someone else for the result! I knew my verdict as soon as Mrs. Jones said she questioned the doctor (either in her head or out loud as she claimed) but did not bother following up on it. Overall thought the case was very interesting.
- I felt that Mr. Jones was not smart about the way she handled her husband's illness. I felt that her first move should have been to take him to the ER on the second day of his illness when he could not stop urinating and drinking. Also, what is the deal with her testimony that she told about her conversation with Dr. Murray? My first thought was he was jerk based on her testimony, but after his testimony, Dr. Kuhn's and Ms. Williamson's. I felt that perhaps Mrs. Jones was lying about what she told Dr. Murray. Also, I believe that the Continuity Clinic should have formal handouts asking about a patient's history. And that the Clinic should be sued in this case. Another concern of mine is the amount of money Mrs. Jones is asking for. I think it is excessive and based on too many "what ifs".
- Ketoacidosis has a very noticeable presentation with one condition unmentioned by either side of the case – "fruity" breath. The attorney representing Mrs. Jones emphasized irrelevant facts and misrepresented the medical system. Nurses usually take history, or the history is filled out by the patient before entering the doctor's check-up room. Diabetes doesn't just happen overnight either. Did they have a family history of Type I or Type II? At age 30, either is very unusual. I just didn't believe the plaintiff. **Researcher Note:** This undergraduate clearly has a medical background, likely in nursing.

- I feel second to the facts of the case, the quality of argument from each attorney was the leading factor in my decision.
- The attorney for the plaintiff was not effective because some things she said were not consistent with testimony given. They could have improved the case by showing that Mr. Jones gave family history in the past or that the practice asked him.
- I feel like the attorneys were a little aggressive and the defense attorney made Dr. Temple look like his motive was the money but I feel like they are all being paid for their expertise so why only bring it up with Dr. Temple.
- I thought it was a pretty tough case because as much as you don't want to blame the doctor, their actions prove negligence. I thought the actors were really good and I enjoyed the case.
- The deciding factor for me was the negligence of getting a formal written checklist of family history. Doctors should get written documentation of family history. Also, there is no doubt that a person wouldn't be very sick the day before they died. He was obviously sicker than the doctor claimed.
- O'Rourke's attack on credibility was an interesting tactic, but ineffective. Mrs. Jones was clearly exaggerating or she would have gone to the ER first. Mr. Jones had no reasonable expectation to aid on the diagnosis or clinic procedures. Dr. Murray did not ask standard medical questions for a common diagnosis, limited case facts in favor of a diagnosis of strep throat. Economist did great job of asserting plausibility defensibility of a biased deposition.
- Dr. Murray was negligent in his diagnosis, not necessarily causing Mr. Jones death, but taking a part. Dr. Murray's negligence is less than that of Mr. Kuhn.

Undergraduate Students – Session 2: Scenario Two

- The fact that Mr. Jones did actually have strep lends credence to the defense's testimony. In any case, there was not enough preponderance of evidence in the plaintiff's favor.
- The trial was organized extremely well. In the beginning I believed that it was probably the fault of the doctors that Mr. Jones is dead. However, after hearing the doctor's testimony and then hearing the requirement for a preponderance of evidence, I did not feel that the plaintiff accomplished that. The plaintiff's attorney repeated herself a lot which made it seem like she had no other evidence.
- I do not think Ms. Jones should get any money. I think if her husband was so sick she should have taken him to the hospital immediately. The doctors did their job well.
- Given the documented evidence and testimony, it seems that with information available at the time, the doctors were not liable.

- They didn't have a diabetes expert. How am I to know if a person's glucose level can go from normal to 1400 in 24 hours? They never had anyone explain that to me.
- I felt that the plaintiff's witness provided credible evidence.
- Plaintiff relied on too much circumstantial evidence. Post facto expert witness testimony not good.
- My decision was solely based on the fact that the plaintiff's statements to the doctor (Murray). The symptoms were not all told or included during the examination.
- It seems like a "he said, she said" situation based on Jones' testimony versus Murray's testimony about the day of the visit concerning the conversation between the two.
- I don't believe Dr. Kuhn had a part of the negligence because he was only told what Dr. Murray let him know about. He had his trust in his resident doctor and he did not take all things in consideration for Jones' diagnosis.
- The plaintiff, Ms. Jones, should be held accountable to the same extent that the defendants are.
- It is sad that Ms. Jones lost her husband, but it seemed like she was trying to get money because she felt it was owed to her.
- I think there is no way that Mr. Jones could have such a high glucose count the day after he was seen by Dr. Murray without him being very ill when he saw Dr. Murray.
- While I really feel bad for the loss of Mrs. Jones, I wanted to determine my judgment based on the evidence and the facts. Granted that there had been some contradicting explanations of what had happened, the fact is that Ms. Jones based her argument on emotions. Also, the plaintiff and the attorney did not do a good job in persuading me because they could be persuaded by money.
- I believe that Ms. Jones is upset over the loss of her husband and would obviously believe that Mr. Murray may have committed negligence that resulted in the loss of her husband. However, the case is to prove that Dr. Murray did not conduct his job reasonably which led to her loss. I believe that Ms. Jones should have taken her husband immediately to the ER even before making an appointment if her concern was as large in the beginning as she made it seem. Dr. Murray took the history he was given and made an appropriate decision at the time.
- I have a hard time believing that a man, Jim Jones, presented like a relatively normal viral patient one day and less than 24 hours later comatose.
- If the subtle, nuanced nature of this case is at all representative of the trial litigation, I'm not confident in the ability of a jury composed of the general public to rationally assess the case and return an appropriate verdict.

- The trial seemed very professional. I believe the judge should have let her presence be more known.
- I found the defendant not guilty because I believe that patient hold some responsibility in their own diagnosis. The evidence in the case and the plaintiff's and defendant's testimonies did not match, therefore leaving me with questionable doubt.
- I feel as if the plaintiffs concentrated too strongly on the emotional aspect.
- I believe the trial itself was held in a good way. The only thing that really got my attention was the demeanor of Dr. Murray and it seemed as if he felt no remorse for the actions he could have done or did not do.
- I think medical malpractice cases are difficult because they are complex. It is hard to differentiate between sympathy for a person who has lost a loved one and realistic facts.
- This was a complex trial. I could see the points that each side had to make. Jane Jones should have asked for a more elaborate diagnosis. Yet in the end the burden must fall to the doctor who did not notice the symptoms or ask his superior, Dr. Kuhn, to help consult with the patient.
- The trial was not frivolous, but without proof of what was said in the conversation between Ms. Jones and Dr. Murray, I can't find him guilty of negligence.
- Civil cases are quite similar to criminal cases, more so than I thought.

Undergraduate Students – Session 3: Scenario One

- They were not negligent because the information about a family history was not given. Even if it was not asked for anyone with half a brain would mention it.
- I've seen many trials before, but this is the first one on medical malpractice. The people such as Ms. Matthew are really strict. They wouldn't let Dr. Murray or Dr. Kuhn elaborate their answers. As a student who is aspiring to become a physician in the future, I learned that I have to be extra careful and be patient.
- Defendants had much better attorneys – argumentation was solid. Attorneys for plaintiff – TONE – hostile, condescending. Holes in arguments – strep throat is better explanation of symptoms. Was it likely that every doctor Mr. Jones has ever seen has neglected to ask about family history or that he didn't disclose it?
- I believe that the case was interesting in that it tried an emotional attack, however, I felt that this was not enough to make the doctors guilty of malpractice.

- I believe the prosecutor was very persuasive due to a particular rhetoric she used to her advantage.
- I believe that Ms. Matthew was playing too hard on sympathy and bias of the jury. I felt she was using those tactics to win her side of the case. The facts to me simply point to no one being directly liable.
- The plaintiff has more to gain from the situation than the defendant and Ms. Jones testimony was rather sketchy and inconsistent. It's more emotional than evidential.
- I believe that when it comes down to a he said she said matter it is most important to consider the indisputable facts (i.e. the written notes, the signing of the check etc.). With that said, I did not feel that negligence was not a factor in the death of Mr. Jones. In addition, I believe that the assumptions and "future plans" that the economist discussed were actually detrimental to the plaintiff's case. The amount of money presented was so high that it made the plaintiff's case less believable.
- Very difficult choice to make and a lot of contradictions in the case, but with the documents and what the doctor was given to work with, a strep throat conclusion made the most sense. The documents and all witnesses except the economist made me lean toward this decision.
- I thought it was a typical trial. I felt it was carried out properly. The procedures were carried out in a timely manner although I did get frustrated with the redundancy.
- I felt that Ms. Jones was too unsure and inadequate with her testimony to prove any medical instructive guilty. The Doctors were right to provide strep test and any negligence was due to Ms. Jones lack of detail of Mr. Jones condition.
- It is a difficult situation and decision but I believe that Ms. Jones left out (not lied about) descriptions of Mr. Jones condition that are vital to this case. The secretary, Ms. Williamson said that first year residents (which Dr. Murray was at the time) allotted one hour per patient. Dr. Murray should not have been rushed and the concerns necessary to make a diagnosis of diabetes were not expressed at the visit to the clinic.
- Stories did not match; most interesting argument was the fact Ms. Jones spoke to Dr. Murray or if she actually didn't. Since these two stories do not match, I cannot find Dr. Murray or Dr. Kuhn guilty of negligence.
- Although I did feel sympathetic with Ms. Jones at the loss of her husband, the doctor's written statement at the time of the visit supplied the facts that decided the doctors were not negligent. Their medical training makes it necessary for them to describe all information at the time of the visit, and I not believe they were lying about the patient's knowledge of history.
- The plaintiff's attorneys seemed too motivated by emotion and seemed less convincing. The defense attorneys seemed like they were supported by more evidence.

- I feel that if only making my decision as an interpretation of fact, that I believed the defendant's position time and time again and that the defendants acted reasonably given the facts.
- I was most perplexed by the lack of medical history provided at the alleged medical visit. It seems routine to complete a medical history questionnaire upon visiting a doctor's office. Even if this had been completed prior to Mr. Jones last visit, why was there no record?
- It is a very sad and tragic event and makes me realize sometimes doctors aren't as "expert and trained" as we think they are. It reminds me of something my friend told me "in reality, the doctor sometimes has to look things up and doesn't really know a lot more than if you look it up on the internet". I wonder why it took two years before the trial. But the evidence of the heart rate differences and medical symptoms really made me decide that the doctor was negligent.
- I found Dr. Temple and Dr. Casey to be the most interesting and helpful with making my decision. Also, the visual aids to keep up with the exhibits could have been better; they were difficult to see.
- In the end it doesn't add up that Mr. Jones should have died the day after seeking medical attention. Although the plaintiff and one defendant argued to create some grey areas, it is difficult to understand how Mr. Jones would be fine one day and dead the next over a diabetic complication.
- I do think that Mr. and Mrs. Jones should have gone to the ER in the first place, but if you can't trust your doctor to run tests and recommend ER visits, then who can you trust? Dr. Murray should have been more concerned with his patient's health.
- I felt the plaintiff's argument was strong at first, but then was weakened by lack of evidence. When I put myself in both situations of the defendant and the plaintiff, I had a harder time sympathizing with Ms. Jones because I think you should take further action if you are not satisfied with the medical opinion of one doctor.
- Because the crux of case rested on "he said, she said" about the information provided on the day of their appointment there is no clear picture of the facts or motives of each party. I felt some arguments were illogical and not well founded, more conjecture.
- I believe that a form should be on record for every patient at any clinic. The questions on the form regarding family history should be asked at every appointment.
- In general I was 50/50 on the case which would favor the defendant. However, the fact that Mr. Jones had a glucose level of 1400 and the ER report shows a family history and more detailed description of the complaint than the defendant's note, show their recklessness. Doctors should probe as much as possible and simple questions or discussions among colleagues could have been the simple solution. Also, the fact that the place has no proof of client family medical histories should be a lesson learned from this case. As small as the recklessness is, in a profession where care must be provided at the highest levels the doctors assume all liability. Health is no matter to not take seriously.

- Each person tries the best they can to make the other side look bad. This was a great experience. Thank you.

Undergraduate Students – Session 4 : Scenario One

- The attorneys for the plaintiff were too emotional. It was clear that Dr. Murray was not given enough information to diagnose diabetes.
- It seemed like a very fair trial, but according to Instruction 5, I did not find enough evidence to find the physicians negligent.
- The doctors have no intentions of letting someone get sick and die, they're job is simply to help. And if Mr. Jones really looked like he was going to die he should have gone straight to the ER.
- The jury goes through a difficult process for both sides have unique perspectives thus making it difficult to make a decision.
- I really dislike the plaintiff's attorneys. They were unorganized and way too wordy. They made me not want to award any money to Ms. Jones. I also was bothered by Ms. Jones for the same reasons.
- The case presented seemed to me like two different stories by the plaintiff and the defendant. My impressions on the trial seem like all trials are complicated because of the two sides of stories that are told. I believe the jury's responsibility is the most difficult because facts are presented differently on both sides.
- I believe that Ms. Jones either made some stuff up in her story or doesn't remember it correctly. It puzzles me why, if her husband was that bad off, she didn't take him to the ER.
- The Resident did not ask the correct questions, there weren't any family history forms, which in part is the clinic fault and the physician. The supervisor doctor should be present with the resident seeing it was the resident's first year. I don't think the resident should have disregarded the phone message about dehydration. Although the loss for Ms. Jones is significant, I don't think a delivery man could earn millions of dollars. Hence, I think she deserves compensation of less than \$500,000.
- Going through this lawsuit makes me realize that when a lot of money is at stake people will not just give away the money. Lots of people have opinions and different facts which make it difficult to see which argument is better.
- The question comes down to if Mrs. Jones and Mr. Jones explained his condition adequately, as Ms. Jones claimed to Dr. Murray. It seems as a resident that Dr. Murray would be more thorough than a regular doctor just to prove his adequacy. I don't think he would be negligent to the degree of denying the "said" symptoms.

- It is hard to keep unbiased in such an emotional case. But, given the facts determined by the plaintiff's lawyer, the evidence was more in favor of the plaintiff.
- Ms. Jones situation is very tragic but I do not believe the doctor's are at fault. The attorney for Ms. Jones kept saying that the doctors did not record any medical history, but it was brought out that Dr. Kuhn wrote negative meaning to his knowledge (meaning no one told him) that there was any medical problems. This fact helped me decide that there was no medical malpractice.
- Seems that Ms. Jones should have been more responsible. She should have taken him to the hospital initially if his symptoms were that severe. Dr. Murray and Dr. Kuhn should have been more attentive and inquisitive about the patient. Ms. Jones needed to be more demanding about her husband's care if he was so sick. Seems as if the trial lawyers were harping on and on about the same things.
- I believe Ms. Jones was deeply upset on the loss of her husband and needed somewhere to place the blame. The facts presented by the plaintiff didn't really make sense when put together with the story. It appeared as though many parts were embellished to support the case.
- I believe that the plaintiff's case was stronger and the facts were more evident. The plaintiff had no problem clearly describing what happened and I believe the defendant stumbled a little and did not have as convincing answers.
- A very interesting case where it seems to me that Ms. Jones is not telling the whole truth about the situation involving going to see Dr. Murray. If he was in that much pain/suffering it would seem like it would be better to go directly to the hospital.
- There were two different accounts of the stories and the defendant's accounts were less reliable and less empathetic than the plaintiff's accounts.
- This happens way too often where doctors try to shirk their responsibilities and try to blame the patients, the patient's families and other hospital staff for their inadequacies.
- Determining relevance is difficult yet integral.
- Ms. Jones incurred losses but it was not by the Dr's negligence that they occurred. The real question here is why Ms. Jones took him to a clinic instead of the ER if his symptoms were as much of a problem as she stated. Also, we know he had to have complained of a sore throat because he did, in fact, have strep. So, the doctor diagnosed the problem to the best of knowledge and we would assume that he would have been waiting to see how the antibiotic worked as he stated. If he found a diagnosis why would he then go on to suspect diabetes when there was no need?
- I feel that the biggest piece of evidence was the records. The records never showed that Mr. Jones was experiencing that severe enough of symptoms. Mr. O'Rourke was very convincing. It should be the patient's job to really stand up and say they think something is more severe than strep throat.

- The case was very extreme on both sides of the argument. Neither the plaintiff nor the defendant agreed on anything the other said. The case, to me, was solely about medical evidence and the glucose level of 1400 was the best argument the plaintiff had.
- Since I have a history of medical practices, I know that it is the physician's job to write everything down in the medical records and ask questions that may not pertain to the patient's complaint directly, but could still be beneficial to the diagnosis, including any and all medical history. Having just a small medical background helped me to make my decision.
- I believe that there was not enough "preponderance of evidence" in this case, which led to my decision in favor of the defendant.
- I am in the medical field, so I can understand Dr. Murray. When people are sick, we can't do anything unless they tell us about it. Yes, Ms. Jones said that she told him but it is questionable. I do think that it was sort of Dr. Murray's fault for not seeing the note saying "dehydration". However, if we want to live in a structured society, someone has to take the chance of doing a tough job like being a doctor.
- I thought that the fact neither the phone record nor the doctor's note included any mention about Mr. Jones insatiable thirst and continual urination showed that it was very probable that Ms. Jones never mentioned these symptoms. I don't think that both the doctor and the receptionist would leave out these important facts. And according to Dr. Kuhn there was never any complaint about Dr. Murray being inattentive before so why would he choose this case to do so.
- Even though they stressed a lot about avoiding emotion in this court case, I felt that many did use it to get their points discussed. The defendant's attorneys seem like they didn't have much to say but tried to argue and persuade the jury. Though I didn't completely agree with the plaintiff's claim, the evidence of the document persuades me. There had to be some negligence of the Jones' visit to the doctors because the ER was able to detect something that the clinic couldn't. (Even though the ER is busier)
- My main question is if there was such a strong presence of diabetes in the family history, how would the Jones family not be more inclined to express this concern when the illness began to progress and when they went in for the appointment? With this concern Dr. Murray would have had better reason to perform any diabetes test or treatment.

Undergraduate Students – Session 5: Scenario Three

- I feel that had Mr. Jones been so sick that he was unable to walk without assistance his wife would have taken him directly to the emergency room. Mr. Jones had gone to the emergency room twice previously for medical symptoms a lot less drastic than what Mr. Jones had at this time. That is why I believe that Dr. Murray's description of Mr. Jones health is more accurate. I do not believe, therefore, that either doctor was negligent in this case.

- I feel as though the plaintiff was unreliable given her condition and closeness emotionally to the situation. There were many things she couldn't recall. The medical expert was clearly biased in that he was looking at the case in hindsight. I feel as though the jurors have to see if there was no information the doctors couldn't make a decision.
- I hate that a discrepancy is present between the defense and the prosecution, but I suppose that such discrepancy is inherent in any disagreement between parties (no discrepancy = no case). I find shades of truth in both and can simultaneously believe that both parties could be completely manipulating me as a "juror". However, I find the manipulation on the side of the prosecution to be particularly obvious and offensive. I feel that Ms. Matthew and her team employed emotional appeals to distract from strict facts and solid testimony. In conclusion, if I were to assume that both parties were manipulating me, I believe that Ms. Matthew is more obviously motivated to do so and therefore feel obligated me to refute her emotion-based arguments.
- I didn't think that the doctors were negligent. The patient's chief complaint could have been the cause of the dehydration, weight loss and nothing was brought to the attention of the doctors about the diabetes. I think that Ms. Jones pieced together the information after her husband's death in an attempt to obtain compensatory damages.
- One thing that influenced my decision was the inconsistency in the plaintiff's, (Ms. Jones) testimony. For example, she could not even recall simple facts such as the time of the day she called the clinic regarding her husband's condition.
- It is unreasonable to believe that Mr. Jones could be in an "OK" state less than 24 hours before reaching a level of glucose that would cause him to be comatose. Dr. Murray seems to display classic negligence and Dr, Kuhn supervision of his residents was obviously inadequate.
- Dr. Temple's testimony was biased because of knowing the end result, even if he was considered to be an expert witness. This caused his testimony to have little bearing on my overall impression of the situation.
- What was in print on medical records spoke more to me than any other factors. The records did not match up with Ms. Jones testimony. There was no evidence of negligence.
- The trial is extremely difficult to decide but I concluded my negligence on the fact that family history wasn't taken or documented resulting eventually in death.
- I believe that there were factors that both doctors should have looked into more. I believe that the lawyers talked too much. The trial would have been a lot shorter.
- I feel I was most influenced by the lack of respect by Dr. Murray at the trial.
- Basic protocol was not followed. If the wife calls in for her husband's appointment, she will definitely talk to the doctor at the appointment.

- I feel that this was a very difficult case and I would have a hard time as a juror. Ultimately, the glucose level led me to believe that Mr. Jones would have been showing some symptoms that would have constituted some questions about diabetes.
- Plaintiff had a better attorney, and the defendant's testimony was not particularly convincing, but the plaintiff's evidence was not enough to meet the burden of proof for me.
- This was essentially a he said, she said scenario. I think either Ms. Jones or Dr. Murray were withholding facts or not telling the truth. What affected my decision was the inconsistency of Ms. Jones' testimony. It seemed unreasonable that somehow the facts ended up in the doctor's note if on one said them. It seemed suspect that she remembered her side of the story so well but didn't remember any of the things on the note.
- I didn't trust the defendant.
- Encourage more mock juries – very interesting topic.
- The diagnosis fit the symptoms recorded. All the proof the jury had relies more on direct evidence than circumstantial. The documents (direct evidence) were not proven to be altered by any means, and additional symptoms key to the correct diagnosis cannot be proven to be more likely to be presented. I favor the defendant, as evidence failed for me to perceive ample evidence for the plaintiff. The plaintiff's lawyer most influenced my choice against Ms. Jones, as she could not truly repel direct evidence of written records confirming strep, and held more on stipulation without proof.
- The major factor in the case I thought was the patient's medical history. Had it indeed been the case that a medical history was not taken at any point, the case would have been more favorable towards the plaintiff.
- There were some questions I had about the case that were never answered during the trial that would have influenced my decision. One such question would have been: If it was so difficult to get Mr. Jones up the stairs at the clinic, why not take the elevator? Certainly at a medical facility there would be elevators and/or wheelchairs. When there were subjective facts that competed against each other and I could not reach a conclusion about which is true, I had to leave it out of my decision.
- I found it odd that there was debate about the medical history of a returning patient. I felt that should have been inquired upon Mr. Jones first visit to the clinic. I also feel Ms. Williamson's testimony on the amount of time physicians of differing terms split with patients put it all in perspective for me.
- The main reason for my final verdict was because Mrs. Jones facts did not add up to me. I believed that the defendant's attorney did a good job at bringing to light that her facts were not straight.

Law Students – Sessions 1, 2, 3 – Scenario One

- I felt as though both of the attorneys were unprepared and not as skilled as they should have been. Neither of the teams did a good job with theme, presenting a believable story or presenting me with a story that was easy to follow. The lack of clarity from both sides weighted heavily on my decision.
- The medical expert witness for the plaintiff was never qualified as an expert. His testimony, further, did not include an opinion as to the standard of care for the rest of the medical profession under similar circumstances. In sum, the plaintiff did not carry their burden of proof in this case.
- Even if patient had given family history and more accurate symptoms, the fact is with a (+) strep test it is completely reasonable to think the illness was caused by strep and should be treated accordingly.
- I thought that the instructions were very good for a law school student. I find it hard to believe that a jury would truly understand all the legalese of the instructions and the burdens placed upon them.
- Overall, it was okay and done in an orderly fashion. Some things did not connect properly but that happens in most cases so that's not typically unusual. I thought it was interesting that they had multiple directs and cross-directs in the trial.
- Didn't get why there was no mention of an elevator – only stairs – for a doctor's office. Defense attorney did good job of exposing bias/questionable motives for experts. Plaintiff needed more corroborative evidence to get to a preponderance standard.
- As a law student it was frustrating to hear irrelevant information that seemed to be an attempt to persuade the jury based on emotion or similar factors – may have caused some bias against plaintiff.
- In a comparative negligence jurisdiction, I might have been inclined to find partially for the plaintiff, but negligence overrode any possible recovery here. I would have liked to have seen plaintiff's attorney do a better job of linking the death to the missed diagnosis (i.e. – “but for____, injury would never have happened”).
- Close case – I would have like to have seen more development on whether these symptoms point to any other diagnosis, how often diabetes is the cause, etc.
- I thought that a few points could have been expressed more consistently. For example, during the course of the trial plaintiff's attorney didn't stress the importance of the simplicity of researching medical history.

- The Plaintiff's opening was very weak. The Plaintiff's "simple and complicated" theme was stretched way too far and became annoying. The second chair (Reynolds) for the Defense was awkward, O'Rourke should have handled it. The damage estimate was not accurate and should have been challenged more.
- Victim's wife seemed melodramatic as did attorneys on both sides. The widow might've done more to weaken the case for me. It seems that if he (Dr.) addressed their concerns about strep and test for it, then he would've addressed the urinating, etc.
- I believe the attorney for the defendant did a better job of focusing the facts and clearing up the issues.
- Too few objections. Attorneys should have a bigger deal about the difference in the stories. Was the checked signed by the deceased in evidence? Defense spent far too long on the experts. Plaintiff was too emotional and undermined the credibility of the witness.
- Plaintiff's Attorney – thought she relied on weak facts, was not very convincing. Defendant's Attorney – very good lines of questioning, honed in on right facts. Plaintiff's Testimony – showed negligence on part of her and her deceased husband. Juror Responsibilities – had a hard time staying focused and I zoned in and out. Made me wonder about what happens in real trials that are much longer.
- I had to make this decision in spite of the lawyers. Both badgered the opponent's witnesses and were generally incompetent in questioning. The closing/openings were awful and long. Of the two sides, Defendants had better representation. Would have preferred testimony from many others like the kids. A much better effort by counsel would have helped in the decision making process. Witnesses were fine on both sides. Jury instructions are probably much easier for the law students. My guess is the defendant's closing didn't make sense in regard to the jury instructions after one quick read.
- I don't think the plaintiff's lawyers were able to prove negligence with a preponderance of the evidence.
- Somewhat hard to follow with tape interruptions. Also dislike Plaintiff's attorney and found wife to be a poor witness. I thought Defense counsel did great job in breaking down economist calculations. Was issue of who to believe with patient's symptoms and why no family history given. Ultimately, I found that a doctor would not have diagnosed only strep if patient was as wife described, nor would a wife leave without more answers. I found doctor more believable and would have ruled for defense. Thought secretary with patient observation after leaving check up was helpful.

- Plaintiff has burden of proof. Most of their evidence was hypothetical. Their account did cause some doubt, but it was not substantial enough to overcome preponderance of evidence standard. Mrs. Jones was only able to provide some vague recollection of events and seemed very interested in primary gain. This, along with the medical expert, who could only answer questions in the hypothetical sense, seemed inconsistent or at least more so than the defense witnesses who were there and seemed more neutral. Especially since they conceded that the events as presented by the plaintiff would equal negligence, but maintained innocence with the records support.

Law Students – Session 4: Scenario Two

- Plaintiff's attorney was so repetitive, she irritated me. It seemed like both plaintiff and defense were lying and so it came down to balancing their testimonies, and it seemed very unlikely that with her kids bringing buckets to their dad so he could pee, that she wouldn't have mentioned that. Also, it seemed Defense should have inquired about family history. Defense seemed apathetic and untrustworthy.
- While the case was close, I didn't believe that the plaintiff met her burden in proving what the appropriate standard of care was for an acting physician. It seems that Dr. Temple spends a considerable amount of time testifying and not in practice. Also, the time pressures of physicians in a clinic may not be something he was sensitive to. I also find it difficult to believe that Dr. Murray would make no notation about Mr. Jones urinating on himself if Mrs. Jones was so adamant it as she claims she was, even if Dr. Murray was in a time crunch. Even if Dr. Murray was liable, Dr. Kuhn would not have been as he was only the attendant physician. The economist assessment of damages was inappropriate. Mr. Jones attending/graduating was too speculative.
- I thought the Plaintiff played up sympathy a little too much. Although she was sympathetic, I felt she didn't display her case as strongly as Defense. Defense's lawyers were more articulate. Better grammatically – might have influenced. I wanted to find for Plaintiff, but she didn't have a strong case that Defense was negligent and almost no case that provided causal link between negligence and injury besides accusing Defense of negligence and describing injury.
- I found the closing argument by the Defense counsel very compelling in the way the facts were constructed and specifically by the statement that a misdiagnosis is not necessarily malpractice. I found the jury instructions to be confusing. Seemingly told the jury to consider bias and then again not to. I did not find compelling any testimony elicited that referred to the potential bias of witnesses who were being paid by one side or the other. I think people understand that professionals are paid for their services.
- It is tough being a juror! Plaintiff did not present enough evidence to get to preponderance standard.

- As the trial progresses, I felt myself wavering in my opinion of the verdict. At the end, however, I thought about all of the facts and there just wasn't enough to make me believe more likely than not that Dr. Murray had negligently treated Mr. Jones. It is sad that the diagnosis was missed and even sadder that this ultimately resulted in Mr. Jones' death, but, ultimately a sad outcome is not conclusive evidence of negligence.
- Hated the Plaintiff's lawyer (one that did opening/closing stunts). Thought the lawyers on both sides were sometimes abrasive, which was a huge turnoff. I like a more professional demeanor. Plaintiff's opening argument was terrible. Is "simplest" even a word? Used the word "simple" and "simplest" way too many times. Defense attorney walked around too much – I don't like when Defense attorney goes too close to plaintiff – especially a sympathies plaintiff. They didn't talk about the disease enough – should have outlined the warning signs better and more clearly before getting into evidence.
- I thought there was a lack of evidence proving any negligence. I didn't like Dr. Casey's testimony. The Plaintiff's attorney wasn't very convincing to me. The trial itself was fairly well run. The defense seemed more coherent and cohesive.
- I did not believe the Plaintiff's testimony as it was inconsistent with every other offered evidence. It is unlikely that any doctor would leave out such major complaints such as constant urination and inability to walk. The attending witness also testified that he had no reason to question Dr. Murray's ability to document medical symptoms. Additionally, I do not believe that Dr. Murray would lie about speaking to the decedent and the secretary's testimony that he was able to walk. I fully believe the Plaintiff was lying.
- I had a few additional thoughts about the case last night that I neglected to include in my questionnaire. A big problem with the Plaintiff's cause in my opinion was the framing of the case. The Plaintiff's attorney kept referring to the simple action "that could have been taken" and the action that "should have been done" and less on a breach of the applicable standard of care for medical residents in the defendant's position. She should have said The Defendant breached the standard of care when he failed to perform a simple test. Furthermore, the expert provided little evidence as to the standard of care in such a situation and I was not sure that his testimony conveyed the fact that reasonable residents when provided when the symptoms alleged and the positive diagnosis of strep would have insisted on a blood glucose test. I kept waiting for the doctor to say that it is the standard of care for a doctor when examining a patient who describes the following symptoms is for him to do A B and C and the doctor failed to do that. While the defendant should have had an expert state that the doctor met the applicable standard of care, the burden laid with the Plaintiff and I believe the Plaintiff failed to prove that the doctor breach the applicable standard of care.

Medical Students -- Session 1 – Scenario Two

- I felt important details were left out. For example, how much time did Dr. Murray actually spend with Mr. Jones? Also, Mr. Jones did not have significant risk for diabetes – he was young and healthy. I would need more information if I were actually deciding this case.

- I felt that both parties tried to manipulate information to their favor and that no conclusion could be drawn from the given information.
- The physicians seemed nonchalant during their questioning, which makes them seem more unconcerned about their patient.
- I believe Plaintiff Jones failed to meet the burden of proof due to the facts contained within the medical documentation and the incredible history of her husband's extremely stuporous condition at the clinic, which was directly contradicted by personnel. A copy of the check from the bank or a copy from Mr. Jones' ledger would have completely sealed the case. However, burden of proof was still not met.
- I see no evidence for the accu-check to have been performed. The family, if they were reasonable, should have sought an ER if the patient was as sick as Ms. Jones said. A CBC and BMP would have been reasonable in this event, and may have uncovered the diagnosis. I seriously doubt that this guy would have ever finished college, that he would have achieved masters, or that his wife would have gone to law school! As presumptuous as it sounds, no person understands the complexity of the human body. If anyone is close though, it is the physician. Most laity and law personnel have little/no knowledge of medicine. If they saw what I see or read what I read, they would feel differently!
- It is reasonable to believe that both parties have distorted recollections of the day. It is unreasonable to believe:
 1. Ms. Jones never mentioned symptoms such as polyuria and polydipsia to Dr. Murray.
 2. That the office staff is in conspiracy together.
 3. That Mr. Jones was as incapacitated as Mrs. Jones claims given two separate witnesses attesting to the fact that he was severely decompensated.

Given these circumstances, I find the facts of the case important. Mr. Jones was not severely hypotensive or dehydrated (BP \approx 120/80). He may have deserved a blood glucose given his symptoms of polyuria and polydipsia, but he may not have been in DKA at the time of presentation in the office- you can acutely decompensate overnight in the setting of infection. Not all AF-AM have diabetes. Moreover, Type I diabetes (which is the more common cause of DKA) is not common in a 30 yr. old. Finally, even if he had been diagnosed with diabetes he would not have as it requires two separate measurements, he might have still have died in spite of proper medical care. Finally, I thought the economists' calculations were egregious and ridiculous --- no wonder Docs want tort reform!
- I was amused and disheartened by the testimony of Dr. Temple. I felt that he was willing to overlook information and stretch facts so that he could make a profit. It seems to be a problem of having to choose to believe one testimony over another, yet both are influenced by the outcome of the case and may not be entirely truthful. I think that in this sort of trial that character witnesses could have played an important role. Mrs. Jones claimed that Dr. Murray was in attentive and ignored her complaints. His past performance as a student and resident both with his attending and other patients (who are not invested in the case) would have been very important. I felt that there were some inconsistencies in Mrs. Jones testimony and many questions I would have asked as a lawyer. For example, if she went to the ER when her husband had a calf tear, why would she not go if her husband can't walk down the stairs? Etc.

- The difficult part of this case is that one is unsure who to believe. Based on the physician note, Dr's Murray and Kuhn acted in the best interest of the patient and acted with reasonable medical practice. If what Mrs. Jones says is true, then they were negligent. Being in medicine, I've experienced most sides of the case. I've been rushed, not listened to patients, and missed the essence of the complaints. Likewise, I've witnessed patients with constant changing stress.

Medical Students -- Session 2 – Scenario One

- The prosecution was not able to prove that the defendants acted negligently in this case. Lethargy, dehydration and clinical symptoms of a VRI give not indication for glucose testing. The Plaintiff's testimony also was contradictory and for the most part irrelevant. The fact that her husband was a football player with children has no relevance to the facts of the case. Also her account seems to be unlikely given the documentation at both the clinic and the ER. The plaintiff's expert witness also lost credibility when stating that the "1st test I would order after lethargy and tachycardia is a glucose test". No reasonable doctor could make a diagnosis/ or has suspicion of this diagnosis if no history was given to support this. I would recommend that the defendants adjust their recording practices to include more pertinent systems.
- It was clear that Mrs. Jones testimony was biased. Any physician could notice a comatose patient, which Mrs. Jones claimed her husband was. The most influential evidence in the case came from the Dr's notes. Every piece of potential evidence in the MD's note could be explained by other more common reasons (blood pressure, temperature, and lethargy). In the presence of a positive strep test, there is no indication for a glucose test, even though it is cheap and fast.
- Many questions still seem unanswered.
 1. How fast can glucose rise to 1400?
 2. What is normal glucose range?
 3. Was Mr. Jones still playing football during 2005?
 4. What proof do we have of Mr. Jones going back to school?
 Great presentation on a case to advocate the need for extremely accurate documentation of who says what in a medical interview.
- It was evident that the lawyer for the plaintiff had no medical knowledge and so she herself didn't understand the answers of the physicians. She is precisely the reason why non-medial people should not be involved in medical malpractice cases. The facts get lost in the effort to focus on the emotion. I am completely surprised that this case even made it before a judge. A complete waste of six days in our court system. Evaluations of medical competence/negligence should be made only by those competent enough to understand the proceedings. Not just anything should be allowed to be brought before a court.
- Physicians are trained medical professionals that can only work with the information that they are being presented with. Next, physicians must use their observations, experience, and physical exams to assess and treat patients. Had the widow portrayed the story to the physicians like her testimony, there would be no question of a diabetes diagnosis. The plaintiff's evidence was faulty and consisted of much speculation not on the case facts.

- Plaintiff attorney kept going on and on with statements that had no regard to medical fact. In closing arguments both the defendant's and plaintiff's attorneys made reference to things said in trial that were not actually said. For example, the plaintiff's attorney said Dr. Kuhn had said that it was probable the patient had signs and symptoms the day prior when he had answered that it was possible. These are totally two different things in my mind and I don't think a judge would allow such a statement to be made. Dr. Temple seemed like a terrible doc. They kept going on and on about family history of DM. Type I diabetes (which is what the patient had if he had DKA) has no familial association. The plaintiff seems to have acted negligently on her husband's behalf if he was in as serious condition as she described.. She sounds like she read the textbook definition of diabetic presentation and regurgitated on the witness stand.
- Two pulse readings, as clearly documented, with such a profound difference, should have prompted the physician (Dr. Murray) to obtain orthostatics on this patient –in which case, he most likely would have found the patient to be volume depleted, leading to a basic metabolic panel (BMP) to monitor for signs of end organ failure, especially the kidney (acute kidney injury), which may have been a probable cause of his lethargy and malaise. In addition, the BMP would have shown an increased glucose level, prompting a more thorough work-up and treatment plan. Even with a diagnosis of “strep throat” the physician should have asked about urinary changes which further would have lead to a diagnosis of increased glucose, and perhaps DKA.
- Many questions I had, from my training thus far in medical school, were not asked or discussed during the trial. I found myself relying on my knowledge of medicine, my instructions/schooling when it comes to interviewing patient, and my own experience in seeing patients. The number one instruction/teaching/rule when seeing a patient is to acquire a complete history. This is the most important factor in treating a patient, and what we are taught in medical school. Thus, a big component is relying on what the patient tells you.
- I found the case to be interesting, yet terribly drawn out. There as extraneous information and misleading testimony. I tried to make my decision based on the paper/hard copy facts presented. I think that the plaintiff's case was only hurt by the addition of the expert witness. I feel that, based on the demands of the Judge, I have assessed the case to the best of my ability.
- Although it is very difficult to separate the emotions felt for Mrs. Jones' loss, it seems that the presentation of and interpretations of the medical facts could have been clearer. Also, I felt that in many ways the jury is under-prepared for this type of judgment call as there are many factors and issues which are not cut and dry, such as a standard history taking approach, labs, circumstances leading a doctor to make a decision, etc.
- I was surprised that Dr. Murray and Dr. Kuhn were both on trial given that the event happened only in his first year out of medical school. I would be interested in finding out how much their hospital helped them, whether in lawyer fees and malpractice insurance, and how much the malpractice covers. I was also surprised in the amount of scrutiny the expert witness faced, being discredited first for their monetary gain. For Dr. Murray, he needed to get a detailed history for the first time he sees a patient and Dr. Kuhn should have confirmed, though this in itself would not be enough to confirm punitive damages.

- Mr. Jones outcome and death are most unfortunate, however, given the facts presented in the case and the nature of the encounter with Mr. Jones, I believe if the question was asked and not documented as it should have been on a family history obtained on every patient, then the physician is responsible for missing the diagnosis.
- It is a difficult situation because it is essentially for many of the main facts, it's the defendants words vs. the plaintiff's. It is hard to know if how Ms. Jones claimed Dr. Murray acted is in fact how he did and likewise if or if not Ms. Jones provided information to the doctors as stated. The doctors "missed" his diabetes, but I don't feel they acted in negligence because of the clinical picture they painted. The plaintiff's attorney's knowledge and presentation of a clinical approach to diagnosing diabetes was inaccurate and could be misleading to a jury.

Medical Students – Session 3: Scenario One

- A Doctor is not God. With all the advances in medicine, people still die and have what we view as unfavorable outcomes. While tragic it would seem to me that cases such as this point to the sheer tragedy that is the human condition. But all hope is not lost. Get Jesus, let go of your life and take his eternal life.
- This trial must have been difficult for the jurors because of the two opposing testimonies. I found that I could not take what the plaintiff said and rule in her favor because there was no actual evidence (papers, witness, etc.). As a medical student and as someone that has grown up around healthcare, I found that the information provided by Dr. Murray was not enough to make someone think of diabetes. As for the PMH, many physician offices now do an abbreviated history after a patient has had their initial screening. Therefore, I think it is appropriate that Dr. Murray did not take an extensive PMH. Overall, I believe that Dr. Murray, and certainly not Dr. Khun, was not negligent in his treatment of Jim Jones based on the direct evidence that was given.
- The concept of differential diagnosis should be explained to the jury before starting arguments, otherwise you don't know which parts of the testimonies to focus on. (Ms Finch's litigious persona was a turn off and dissuading factor). Mrs. Jones' testimony should've been challenged immediately if there was direct evidence against it – i.e. Mr. Jones signed the payment check, did not have to be carried out. Makes the rest of her testimony hard to believe. The exercise would be useful as part of the ECM 1 med ethics and importance of taking a good PMH lectures to first and second year medical students. Thanks!
- Document! Document! Document! I see the SOAP note recorded by the resident as absolute truth. Documentary patient history and chief complaint is an integral part of the medical education that's begun in the first year of medical school. The defendant would not have thrown all of his interviewing skills and history documenting skills for this one patient, and if he lacked those skills he probably would not have made it out of school or into a residency program. I find it hard to give credibility to the plaintiff's testimony when it is completely inconsistent with the SOAP note/medical record. It does seem like the plaintiff's case, witnesses and attorney's remarks would "work" on people without medical experience or experience in interviewing patients.

- I would speculate that if I were not a member of the medical community, Instruction 6 would be hard to follow because it would be very difficult for someone to compare the conduct, knowledge and skill of an MD if they had not been in an MD situation/job role. Given the facts of the medical record, I believe that the case given was reasonable and the circumstance, especially in light of Mrs. Williamson's testimony.
- Difficult case because given solely the facts (records and notes) the diagnosis was not farfetched and diagnosis of diabetes was not immediately indicated. History is also hard to determine who to believe in a "he said, she said" situation but it seems unlikely that a doctor would ignore comments that Mrs. Jones claims to have made to possibly save time. A glucose test would have taken just as long, if not less time, than a strep test. The main issue here was whether Mrs. Jones overwhelming proved that she was to be believed over the doctor's statements and she did not meet that requirement. The litigious nature of the medical system seems to keep doctors from being able to work at their best. They have to see a large volume of patients and also order extra tests to cover themselves just in case. Also if better record had been kept, maybe this case would not have been difficult. (and maybe death avoided).
- I would have liked to have been able to read through the defendant (Dr. Murray's) entire clinic note. That way I could have noted whether or not he documented a thorough review of systems, and if it showed that he addressed and questioned the patient about pertinent positive and negative symptoms. This was unclear to me. Since it was not clearly stated that Dr. Murray did these things, I would consider him negligent. Dr. Kuhn did not go in to assess the patient himself, even though Dr. Murray was a new first year resident in training. He lacks both the experience and depth of clinical knowledge that an attending physician has. Therefore, the fact that Dr. Kuhn did not lay eyes on the patient himself is also negligent. Good case, very compelling. Easy to see both sides.
- This was very interesting to see all the aspects that go into a medical malpractice trial and the accusations that are made for both parties. I feel that not being educated in the medical field, I would have chosen no negligence on Dr. Murray's part due to the differing stories of Ms. Jones and Dr. Murray and the ER admit sheet. I think it is very easy in hindsight for Ms. Jones to look back and say that yes her husband had polyuria and polydypsia and other key diagnostic facts that would lead a physician to think of diabetes. However, at the time of his appointment I do not believe those were key concerns of hers as she did not understand the importance of them. The only reason I found Dr. Murray guilty of negligence was due to the failure to ask a review of symptoms which is general questions asked on any acute care visit. The questions would have covered polyuria, polydypsia, weakness, etc. He would then have thought of diabetes even when the clear "roadmap" signs were not voiced by the patient. Thanks you for this experience! It really opened my eyes to the importance of patient care and clear medical records.
- I am sort of shocked that each side had fairly differently stories. This is my first court exposure (real life) and the difference between the plaintiff's story and the defendant's story is huge. I realized I had to rely more on case facts and my exposure to medicine to make a decision rather than rely on either the plaintiff or defendant. The defendant made a great case but, to me the doctor could have inquired more from the patient. It is very important that the jury keep away from being swayed by the plaintiff's emotions as well. I noticed (and didn't like) that the plaintiff had talked too much about emotional things to try to bias the jury in her favor.

- With the direct facts given, medical records, interns time allotted to each patient, the motive for needing cooperation, and patients ability to sign his own check, which contradicted the plaintiff's testimony of her exposure that day, it seems to me that the plaintiff is fabricating or either not recalling facts accurately. Also, knowing the basis for a focused medical exam, which would have occurred in this case, make me think that Dr. Murray and Dr. Kuhn acted appropriately and reasonably.
- It is really hard to point the finger at either side. Both plaintiff and defendant had holes in their stories. Mrs. Jones tried to paint Dr. Murray as a callous, uncaring man who had no time for her or her husband in her testimony. The issue with that portrayal is she left out key facts and symptoms that were very important. I would go as far as asking the question of why she didn't go to the ER if her husband's afflictions were as bad as she said they were. On the other hand, Dr. Murray came off as being a little too nonchalant. He left the door open for the defense when they left out the patient history. I agree that diagnosis is a roadmap but you do need some direction.
- I thought the clinic should have a history form the patient fills out before they see the Doctor to insure they have a record that the patient denied or did not mention certain symptoms or elements of their history. I relied very heavily on the SOAP note. It just did not make sense that a doctor would omit polyuria, excessive thirst, and the fact that the patient could not walk up/down stairs. Wouldn't the patient at least require a wheelchair at the clinic? Wouldn't that be mentioned in the SOAP note?

Medical Student -- Session 4: Scenario Two

- I think the economic experts' estimate was completely unreasonable by being based on the patient's "goals and dreams" rather than his current life status. It is easy to say what you "will do" in the future – quite different to actually accomplish it. I thought the Plaintiff's attorney repeatedly twisted people's words and exaggerated. She was not believable. It is a sad story, but sad stories alone should not be the basis for litigation.
- The medical malpractice procedure is very unfortunate. It does not provide a forum from which the truth can be easily extrapolated. Neither the jurist nor lawyers can understand the appropriate approach to patient care. It isn't because they aren't intelligent enough. It's because they cannot be expected to make a decision of such magnitude concerning the care given by a physician, which he or she rendered with the with the knowledge accumulated over many years in training, after being educated about such matters in a court room setting. It is frightening.
- The process is tedious; the plaintiff attorney works to wear down the jury, pleas for sympathy and has obviously coached the behavior of the plaintiff. Mr. Jones should have had life insurance, as anyone with the responsibility of children should do. The clinic paperwork should be designed to document a Review of Systems on all patients (proving that all questions get covered). Acute appointments are designed to focus on the complaint at hand – strep throat. DKA often does develop after an illness like this, but not frequently enough that diabetes would have been suspected. Mr. Jones was too old for typical DM I and had no complaints relating to DM I or II symptoms. Routine glucose testing is not indicated at acute appointments.

- I am highly irritated by the behavior of the attorney's, especially those of the plaintiffs – asking the defendant to read from the evidence or answer yes or no to questions about such evidence is a complete waste of judge and jury's time. Also, the imperfections of the justice system become evident when one realizes that a convincing “performance” by an attorney on either side of the case could sway a jury of people who are probably not well educated in the practice of medicine.
- The topic of family history comes up repeatedly and this is an interesting fact given the case. First, Type I diabetes (the disease of Mr. Jones) has less twin-twin/genetic concordance than Type II diabetes, i.e., family history is more important in diagnosing the latter, which the patient did not have. This should have been discussed by the expert witness. Secondly, it is appropriate to omit family history for a focused clinical encounter when the patient's presentation does not hint at a need to offer it. The MD's note and the MD's testimony and the Attending's review at the time of the patient presentation are stronger than a widow's recollections of the events, in my opinion.
- I found it interesting that first year residents have one hour to interview new patients. I feel that in that length of time Dr. Murray could have elicited a very thorough history from this patient, especially since he was fresh out of medical school. However, since he was right out of medical school, he has very little experience and so that is why I find or would implicate Dr. Kuhn here as well. It is his responsibility to train the interns/residents in a way that will make them competent, discerning doctors. I don't feel punitive damages should be awarded in this case. I don't feel Dr. Murray was grossly negligent, meaning that he intended to harm this patient, Mr. Jones. He did make a medical error though, and missed what I feel he could have gleaned from a better history. He's an internist not the ER doctor. In the clinic you have the opportunity to get a better history than in the ER, where you might focus on only the chief complaint. There is no way Mr. Jones would have made more than \$2 Million in his lifetime.
- I decided how I did based on four main points:
 1. Ms. Jones stated that she had to dress her husband, because he was so weak and even carry him up the stairs, however she still for some reason had him sign his own bill and check out and interact with the checkout lady.
 2. Ms. Jones stated that she had to speak for her husband (that couldn't speak), however the record states he spoke to the doctor and also interacted with the checkout lady.
 3. Ms. Jones stated she never mentioned anything about her husband's vomiting getting better, however the record shows that to be the case and is the accurate record apparently.
 4. The positive strep test and “lethargy” can be explained by actually having strep throat and the fact this was listed as chief complaint.

I think that the average American simply does not have enough education to make an informed decision about whether or not a Doctor acted appropriately in a medical situation. We are trained anywhere from 7 to 10 years to be able to make these diagnosis and prescribe treatments. For the average layperson, to just present a few facts and witnesses in a few hours timeframe and ask “Did the Doctor do the right thing?” an accurate decision cannot be made in my opinion.
- I felt that Mrs. Jones may have lied about the cause of events at the clinic because of potential monetary reward. The Plaintiff's arguments express a misunderstanding of medical reasoning and practice. But I am not sure if this would be interrupted differently by the public. Dr. Murray's medical reasoning was perfectly intact and his actions were very sensible to me.

- The Plaintiff's lawyer main arguments ignored largely the medical concept of a focused exam based on presented information. They put forth the idea that no matter what the patient complains of, the physician should find their patients' problems, even if those problems are displaying an irregular pattern of signs and symptom. This, however, is how BAD medicine comes into being. Ordering every test and asking every possible question would be expensive, too time consuming, and overall irresponsible in the real world. The patient apparently showed signs of strep and the strep test confirmed it. There was simply not enough evidence to punish either doctor in favor of monetary compensation for Mrs. Jones. The stories from the two sides were so contradictory that it was difficult to know what to believe. Obviously, there was a severe case of miscommunication between the resident physician and Mrs. Jones as Dr. Murray left the appointment with incomplete information and Mrs. Jones felt incompletely attended to. I think retrospectively, her sentiments about the appointment were much more severe and emotionally charged considering the results, but I don't think this is grounds for charges against the physicians. I do hope the events lead to changes in the way these physicians communicate with their patients in order to receive the most complete and accurate history possible to avoid such future events.
- I'm sorry to send such a long/involvement email, but I was thinking about the study we participated in last night and had just had some questions I wanted to run by you if you have time? First I had a thought about the bias of our sample group... while laypeople may be too biased in favor of the plaintiff, we as med students in clerkships are singularly able to understand and empathize with any missed diagnosis, as we are still missing dx's on a daily basis! But you all may already be correcting for that.
 What has kept nagging at my mind is that, although I recorded a judgement of not guilty, I did feel the standard of care was not reasonable in that a family history was never taken, but did not find any ethical fault with the behavior of either physician... The more I think on it, it seems like this whole system is so backwards as to literally put a pricetag on a person's life.
 I'm sure there are reasons for status quo being what it is, but if I got to make the rules I would think the most fair way of monitoring a physicians quality of care would be 1) to regularly run a census on all his pt's... then 2) if the dr makes a mistake-- as we all will, being human-- he should have to financially compensate the patient or pt's family for the costs related to the care he rendered in that case (ie- if he misses a dx, he would comp the fee for that visit and pay for any labs/films/referrals/etc he ordered) regardless of the seriousness of the outcome, as such an outcome can by its nature never be confidently foreseen. Then 3) if any physician repeatedly fails to meet reasonable standards on his pt census, or 4) if he makes an error that raises serious concern over his ethics and/or competency, he should additionally lose his medical licence forever.
 Period. End of story. That type of sentence will likely add up to be far more monetarily expensive than a typical settlement (if we estimate a person's "value" in the way the professional economics witness did, by calculating life earning potential and remembering that a guilty verdict in a malpractice suit for a dr is a death sentence to his livelihood) ..not to mention the sundry other repercussions of being "dishonorably discharged" from ones chosen profession...
 ...as a sidenote, Ive repeatedly noticed that the medical profession has a very similar structure and mentality as the military does, but no one would expect the legal system to fine a soldier if he were to, for instance, accidentally engage in friendly fire and kill a fellow countryman. I believe the idea revolves around the concept of personal responsibility, and that a dishonorable d/c could be considered a more stringent penalty for misconduct than any monetary fine could

be.. Im not sure where this concept has disappeared to in our society lately, but hopefully it has not yet become a zebra!

That just seems a much more fair measure of medical malpractice compensation, a life for a life, if you will.. Obviously the defence lawyer couldve spent lots more time focusing on how a guilty verdict would ruin the charged dr's life to a comparable magnitude as losing her husband changed mrs jones'. Perhaps that is ethical/emotional ground I ought not tread, though.. having never lost a family member to a sudden death I simply cannot empathize with mrs jones as much as I do with the charged dr's. Also, I categorically disagree with a penalty system which portends one human can ever be solely responsible for the life (if responsible for/guilty of the death) of someone else, with the only exceptions being cases of involving malicious intent and cases of a child/minor charged to one's care.

Anyway that's my 2 cents, if you have any thoughts on why we do things the way we currently do (ie-who came up with this idea of being able to "buy back" a life?!) I would love to hear another opinion. If not and you are busy compiling data, no worries, this is not a burning issue more of a curiosity :)

Thanks for the pizza and interesting evening!

APPENDIX F

Stata Regression Models

Model One – Probit Analysis

```
. use "C:\DATA\trial7.dta", clear

. probit negdec1 undergrad lawstudent male1 white1 pollib1 polcon3
```

Iteration 0: log likelihood = -100.49841
 Iteration 1: log likelihood = -92.103365
 Iteration 2: log likelihood = -92.058315
 Iteration 3: log likelihood = -92.058308

Probit estimates Number of obs = 159
LR chi2(6) = 16.88
Prob > chi2 = 0.0097
 Log likelihood = -92.058308 Pseudo R2 = 0.0840

negdec1	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
undergrad	.2298515	.255464	0.90	0.368	-.2708488	.7305518
lawstudent	.1724379	.3182735	0.54	0.588	-.4513668	.7962426
male1	-.7518514	.2284384	-3.29	0.001	-1.199582	-.3041203
white1	-.2518958	.2495683	-1.01	0.313	-.7410408	.2372491
pollib1	-.2718187	.2596848	-1.05	0.295	-.7807915	.2371541
polcon3	.064918	.2774349	0.23	0.815	-.4788445	.6086804
_cons	-.0718198	.2853982	-0.25	0.801	-.6311900	.4875504

Model Two – Probit Analysis

use "C:\DATA\trial.dta", clear

. probit negdec undgrad male1 white1 pollib1 polcon3

note: undgrad dropped due to collinearity

Iteration 0: log likelihood = -68.723157

Iteration 1: log likelihood = -64.682301

Iteration 2: log likelihood = -64.669982

Iteration 3: log likelihood = -64.669981

Probit estimates

Number of obs = 105

LR chi2(4) = 8.11

Prob > chi2 = 0.0878

Pseudo R2 = 0.0590

Log likelihood = -64.669981

negdec	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
male1	-.7342127	.2712609	-2.71	0.007	-1.265874	-.2025511
white1	-.1104058	.2910826	-0.38	0.704	-.6809172	.4601057
pollib1	-.0795146	.1682107	-0.47	0.636	-.4092015	.2501722
polcon3	-.0038271	.5472610	-0.01	0.994	-1.076439	1.068785
_cons	.1646151	.4024553	0.41	0.683	.6241828	.953413

Model Three – Probit Analysis

use "C:\DATA\trial7.dta", clear

. probit cdamaward male1 white1 pollib1 polcon3 type

Iteration 0: log likelihood = -100.49841

Iteration 1: log likelihood = -92.125126

Iteration 2: log likelihood = -92.080416

Iteration 3: log likelihood = -92.080409

Probit estimates

Number of obs = 159

LR chi2(4) = 16.84

Prob > chi2 = 0.0048

Pseudo R2 = 0.0838

Log likelihood = -92.080409

cdamaward	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
male1	-.7517105	.2284719	-3.29	0.001	-1.199507	-.3039139
white1	-.2580290	.2478827	-1.04	0.298	-.7438702	.2278122
pollib1	-.2655961	.2578954	-1.03	0.303	-.7710618	.2398696
polcon3	.0623108	.2771545	-0.22	0.822	-.4809021	.6055237
type	.1109895	.1261185	0.88	0.379	-.1361981	.3581772
_cons	-.0519125	.2689233	-0.19	0.847	-.5789925	.4751676

Model Four – Oprobit Analysis

use "C:\DATA\trial7.dta", clear

. oprobit recomdam undergrad lawstudent male1 white1 pollib1 polcon3

Iteration 0: log likelihood = -159.97395

Iteration 1: log likelihood = -150.04691

Iteration 2: log likelihood = -149.98181

Iteration 3: log likelihood = -149.9818

Ordered probit estimates

Number of obs = 159

LR chi2(6) = 19.98

Prob > chi2 = 0.0028

Pseudo R2 = 0.0625

Log likelihood = -149.9818

recomdam	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
undergrad	.3146654	.2418560	1.30	0.193	-.1593636	.7886943
lawstudent	.3587206	.2980832	1.20	0.229	-.2255118	.9429529
male1	-.7781838	.2187818	-3.56	0.000	-1.206988	-.3493794
white1	-.2391700	.2285001	1.05	0.295	-.6870219	.2086819
pollib1	-.1908766	.2409840	-0.79	0.428	-.6631964	.2814433
polcon3	.1074243	.2571541	0.42	0.676	-.3965886	.6114371
(Ancillary parameters)						
_cut1	.1880751	.2683075				
_cut2	.7699688	.2740675				
_cut3	1.373312	.2974737				
_cut4	1.458413	.3560060				

Model Five – Probit Analysis

use "C:\DATA\trial7.dta", clear

. probit pdamaward male1 white1 pollib1 polcon3 new_type

Iteration 0: log likelihood = -42.543298
 Iteration 1: log likelihood = -36.657352
 Iteration 2: log likelihood = -36.231375
 Iteration 3: log likelihood = -36.220680
 Iteration 4: log likelihood = -36.220668

Probit estimates

Number of obs = 159
 LR chi2(4) = 12.68
 Prob > chi2 = 0.0269
 Pseudo R2 = 0.1486

Log likelihood = -36.220668

pdamaward	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
male1	-.5341575	.3884991	-1.37	0.169	-1.295602	.2272868
white1	-.5424414	.3630397	-1.49	0.135	-1.253986	.1691034
pollib1	-.1548495	.3978510	-0.39	0.697	-.9346230	.6249241
polcon3	-.0054150	.4236806	-0.01	0.990	-.8358502	.8249471
new_type	.9098187	.3898689	2.33	0.020	.1456898	1.673948
_cons	-1.476258	.3757130	-3.93	0.000	-2.212642	-.7398736

Model Six – Oprobit Analysis

use "C:\DATA\trial7.dta", clear

. oprobit repundam male1 white1 pollib1 polcon3 new_type

Iteration 0: log likelihood = -52.954057
 Iteration 1: log likelihood = -46.314175
 Iteration 2: log likelihood = -45.785314
 Iteration 3: log likelihood = -45.769638
 Iteration 3: log likelihood = -45.769614

Ordered probit estimates

Number of obs = 159
 LR chi2(5) = 14.37
 Prob > chi2 = 0.0134
 Pseudo R2 = 0.1357

Log likelihood = -45.769614

repundam	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
male1	-.5986128	.3930648	-1.52	0.128	-1.369006	.1717800
white1	-.5790238	.3603518	-1.61	0.108	-1.285300	.1272526
pollib1	-.2029667	.4013758	-0.51	0.613	-.9896489	.5837155
polcon3	.1706065	.4097282	0.42	0.677	-.6324460	.9736589
new_type	.9554738	.3945766	2.42	0.015	.1821179	1.7288300
(Ancillary parameters)						
_cut1	1.502990	.3765614				
_cut2	2.124234	.4181342				
_cut3	2.478610	.4708098				