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Understanding medical malpractice insurance: A primer

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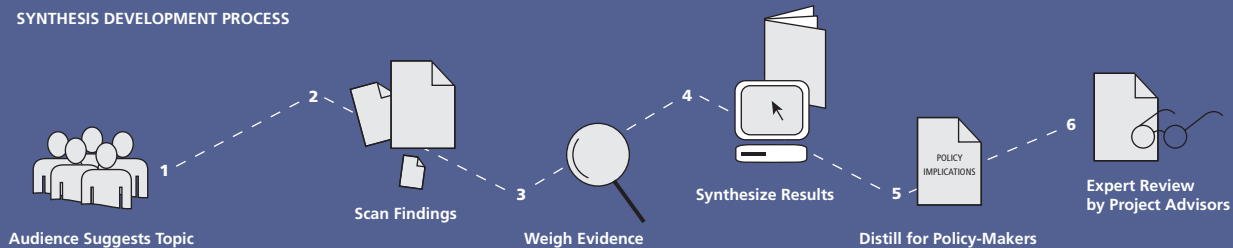
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THE SYNTHESIS PROJECT (Synthesis) is an initiative of the Robert Wood Johnson Foundation to produce relevant, concise, and thought-provoking briefs and reports on today’s important health policy issues. By synthesizing what is known, while weighing the strength of findings and exposing gaps in knowledge, Synthesis products give decision-makers reliable information and new insights to inform complex policy decisions. For more information about the Synthesis Project, visit the Synthesis Project’s Web site at www.policysynthesis.org. For additional copies of Synthesis products, please go to the Project’s Web site or send an e-mail request to pubsrequest@rwjf.org.

SYNTHESIS DEVELOPMENT PROCESS



Introduction

As the policy debate over the medical malpractice insurance crisis continues, dueling claims about its causes and suggestions for policy solutions have highlighted the need for a better understanding of how medical malpractice insurance works, why premiums change and what can be done about it. This policy primer provides a basic description of these issues, focusing on the following questions:

- How does medical malpractice insurance work?
- How much do we spend on the medical malpractice system?
- What is a medical malpractice “crisis”?
- What causes malpractice crises?

This Primer is one in a series of reports addressing medical malpractice insurance issues. The series also includes a Research Synthesis and Policy Brief analyzing research evidence on how the medical malpractice crisis has affected health care delivery and the impact of state tort reforms.

How does medical malpractice insurance work?

Most health care providers need to buy professional liability insurance. Nearly all states require that physicians have liability insurance. Even in states that don’t, physicians usually have to have insurance coverage in order to get privileges to see patients at a hospital. In some contexts, however, physicians can choose to “go bare.” In Florida, for example, it is estimated that about five percent of physicians carry no liability coverage (17).

Physicians usually buy their insurance from a commercial company or a physician-owned mutual company, either individually or through a group practice. Hospitals and other health care facilities purchase their own insurance, and hospitals that directly employ physicians typically buy a policy that covers both the hospital and its medical staff. Physicians employed by the federal government don’t buy insurance; if they are sued, the suit is brought against the federal government, which insures itself. Some state-employed physicians receive coverage from the state.

Premiums for malpractice insurance vary with the provider’s degree of risk, but experience rating is not widely used. Insurers set premiums on a prospective basis based on: 1) their expected payouts for providers in a particular risk group; 2) the uncertainty surrounding this estimate; 3) their expected administrative expenses and future investment income; and 4) the profit rate they seek. They use information on past losses and expenses, combined with other information, to help them set rates.

Physician professional liability insurance does not work like auto insurance, which is generally experience rated. When a motorist has a claim, his insurance premiums go up. Physician malpractice premiums, by contrast, are usually priced according to the physician’s specialty and geographic location only (some insurers also consider number of hours worked and types and setting of work within the specialty). Experiments with individual experience rating have not worked because physicians’ claims experience is too variable over short time periods, making it difficult to produce an actuarially stable estimate of their risk.

For hospitals, some degree of experience rating occurs, but usually no more than 25 percent of the hospital’s total premium is based on experience. Experience rating hospitals is more feasible than experience rating physicians because hospitals’ claims experience is more stable over time. Hospital premiums also vary with hospital location (e.g., urban versus rural) and the clinical services offered (e.g., level of trauma care).

How does medical malpractice insurance work?

On average, it takes four to five years to resolve a claim from the date of an incident (23). In many states, plaintiffs can wait two or three years after discovery of an injury that allegedly resulted from malpractice to file a claim. This long tail means that insurers have a lot of uncertainty about what their liability ultimately will be. The difficulty of estimating liability for claims that have not yet been brought or resolved makes it hard for insurers to set premiums accurately.

Although recently a federal legislative issue, like most kinds of insurance, malpractice insurance is regulated primarily by the states. State insurance commissioners regulate rates to ensure that they are not excessive, inadequate or unfairly discriminatory. Variations in this state-specific regulation are one reason that premiums may go up (or down) in some states and not in others.

State departments of insurance follow one of six types of insurance regulation for medical liability insurance (Figure 1). Some make it harder than others for insurers to change their prices (23). Even within these six statutory approaches, there can be significant variation in the actual amount of oversight by the insurance commissioner. The commissioner may be relatively stringent or lenient in approving rate changes and more or less diligent in reviewing submitted materials.

Figure 1. State approaches to medical malpractice insurance regulation

	Insurance regulation approach	How it works
<p>Most restrictive</p> <p>Least restrictive</p>	Prior approval	Insurers must file proposed rate changes with the state and obtain approval before the changes can be implemented (17 states in 2004).
	Modified prior approval	Requires prior state approval for rate revisions based on a change in the insurer's expense ratio.
	Flex rating	Requires prior approval only if the rates exceed a certain percentage above (and sometimes below) the previous rates.
	File and use	Requires that insurers notify the state of rates prior to their use, but does not require specific approval (23 states).
	Use and file	Requires that the state be notified after rate changes are implemented (9 states).
	No file	Requires insurers to maintain records of information used in developing their rates, but does not require them to file notice of their rates with the state.

Source: Nordman et al., 2004. Source does not list the number of states using the modified prior approval, no file, or flex rating regime.

Rate regulation may have an important influence on insurance prices, but whether it raises or lowers them is not clear. In theory, regulation could keep prices higher or lower than they would be in an unregulated market. Prices could be higher if regulators set price floors in an effort to protect consumers against companies becoming insolvent because they dropped their rates too low and incurred liability they couldn't pay for. They could be lower if regulators refused to approve rate hikes in response to pressure from consumers to make insurance more affordable. Studies of auto insurance have provided support for both these hypotheses (6). No comparable studies of the professional liability insurance markets are available.

How does medical malpractice insurance work?

Several important recent shifts in the liability insurance market have affected how much health care providers pay for insurance and the amount of exposure they face.

Exit of some commercial carriers and advent of physician mutuals—Physician-owned-and-operated companies (mutuals) sprang up in the 1970s and 1980s to fill gaps left by the exit of commercial carriers. Mutuals may offer lower rates than commercials and give physicians greater control. Some mutuals with little underwriting expertise have faltered during hard markets, however,

Problems obtaining affordable reinsurance after September 11—Reinsurance, which covers losses above a specified threshold, helps organizations limit their exposure in a given year. Reinsurance has become more expensive for both self-insured hospitals and insurers during the most recent malpractice crisis. Along with other factors, the catastrophic losses that reinsurers suffered on September 11 made reinsurance more expensive. When reinsurance costs more, primary insurers' profits decline unless they pass along the increase to those they insure.

The growth of hospital self-insurance—Instead of opting for commercial insurance, many hospitals are forming captives (companies that are wholly owned by a single health care facility or hospital system) and other self-insurance arrangements in order to exert greater control over rates and leave a risk pool that includes higher-risk facilities. The downside is that self-insured hospitals tend to retain more risk, particularly if they have trouble finding affordable reinsurance. Also, prices in the commercial market may increase when lower-risk members leave the pool.

Shift from occurrence policies, which cover all incidents in the policy year regardless of when the claim is filed, to claims-made policies, which cover only claims filed in the policy year—Coverage is more meager under a claims-made policy; it leaves a long tail of exposure for incidents that haven't yet become claims. Most physicians purchase costly tail policies to cover these incidents, in addition to paying for a claims-made policy.

Increasing interest in hospitals buying insurance for doctors—By affiliating more closely with hospitals, some physicians have been able to find a stable, relatively low-cost source of insurance. This trend has widened the disparities between physicians who practice in large-group settings and those in small-group or solo practice settings, who are more vulnerable to fluctuations in overhead costs.

The growth of joint underwriting associations (JUAs) and patient compensation funds (PCFs)—JUAs are state-mandated insurers of last resort for physicians who cannot find insurance on the market. If the JUA's losses exceed the premiums it collects, other insurers in the state are required by law to contribute toward covering them. PCFs are state funds that operate like an excess-layer insurer—that is, if a judgment exceeds the physician's primary policy limit, the PCF pays the amount above the limit (or the amount between the limit and another statutorily-prescribed amount). They are funded by mandatory surcharges that physicians and hospitals pay on their primary-layer policies. These arrangements give primary insurers, physicians, and hospitals an extra cushion against large judgments, but impose additional costs that may be hard to bear in times of crisis.

Relatively poor returns on investment since 2000—Insurers invest much of the premiums they collect. Their portfolios tend to look fairly similar, typically consisting of about 80 percent bonds, 10 percent stock, 5–10 percent cash and a smattering of other investments (23). These relatively conservative portfolios are required by law in most states. Even these portfolios, however, are vulnerable to swings in the equity and bond markets. Insurers, like other investors, have enjoyed less favorable rates of return on their investments since 2000. Median investment income among

How much do we spend on the malpractice system?

insurers with 50 percent or more of their business in malpractice insurance dropped 52.7 percent from 2000 to 2002, from \$4.5 million to \$2.1 million, with investment yields dropping from 5.2 percent to 4.3 percent (23). This drop looks large, and is often cited as a leading reason for increases in insurance premiums. It is important, however, to remember that investment income is only a small part of total insurer income (23).

How much do we spend on the malpractice system?

Much has been said in the policy debate about the toll that malpractice litigation takes on the economy, but hard cost estimates are elusive. To calculate the total costs of the malpractice system one would need reliable estimates of both the direct and the indirect costs. The direct costs of malpractice litigation include payments made on claims (from which plaintiff's attorney fees and costs are taken), legal costs of defending claims and costs of underwriting and administering liability insurance. A recent estimate suggests that claims costs amounted to \$4.4 billion in 2001, legal defense costs amounted to \$1.4 billion and insurance administration amounted to \$700 million. Thus, total direct costs were probably about \$6.5 billion in 2001, or 0.46 percent of total health care spending (2). These and all estimates of the costs of the malpractice system, however, are back-of-the-envelope calculations; no hard cost figures are available.

Indirect costs arise when the liability system causes physicians to supply more health care services than they would in the absence of a liability threat. Services that are provided primarily or solely for the purposes of protecting physicians against malpractice liability, rather than the medical benefit of the patient, are referred to as defensive medicine. True defensive-medicine costs are properly counted as indirect costs of the malpractice system, but the costs of additional *appropriate* (i.e., medically indicated) services should not be included in that estimate.

There are no reliable estimates of the national costs of defensive medicine. Many analysts have attempted to estimate these costs; all have failed to do so reliably. All of the available measurement methodologies have serious shortcomings (10, 18). For example, some national estimates are based on the incremental cost increases associated with just two or three medical procedures or diagnoses. It is simply not possible to extrapolate so widely to other procedures, because some are more amenable to defensive medical practice than others. The Office of Technology Assessment conducted a comprehensive review of the evidence about defensive medicine costs in 1994 and concluded that none of available estimates were reliable (32). Much additional research has been conducted since then, but the conclusion remains the same.

Malpractice litigation costs and total health care spending are related, but not precisely. Because the cost of medical care for injured patients is a large component of malpractice awards, we should expect awards to rise along with increases in health care spending. Indeed, both average paid claims and per-capita health spending grew 52 percent in real terms from 1991 and 2003 (14 and spending data from Centers on Medicare and Medicaid Services). Malpractice awards also include other components, however, such as non-economic damages, so we should not expect them to precisely track health care spending.

What is a medical malpractice “crisis”?

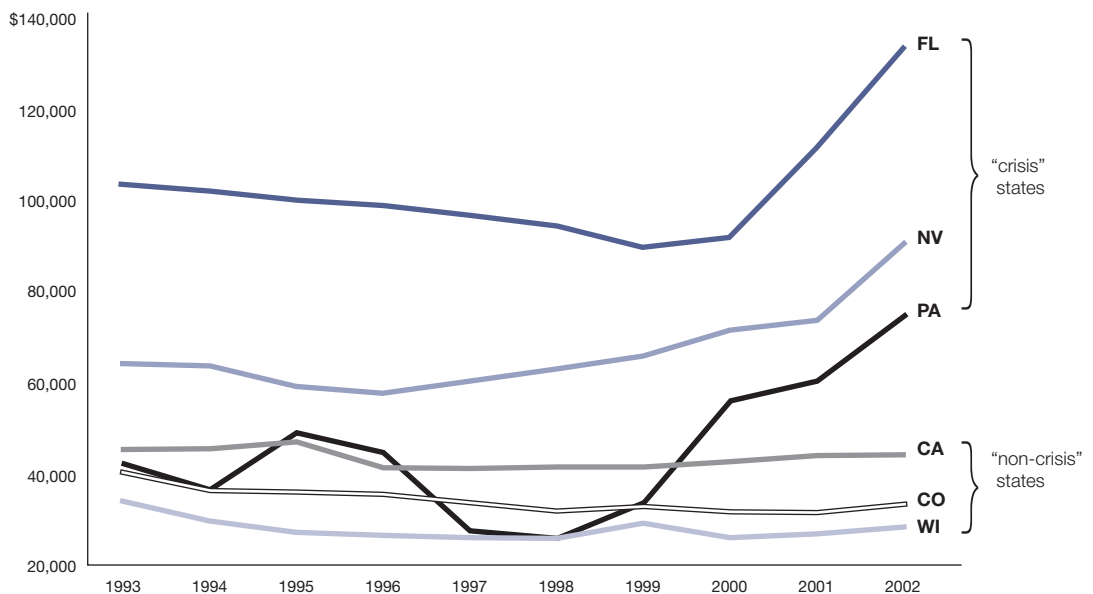
Stakeholder groups disagree about whether the current environment should be labeled a “crisis,” but there is general agreement that malpractice insurance has become less affordable and available. A malpractice crisis is a period of volatility in the medical professional liability insurance market in which deterioration in insurance carriers' financial

What is a medical malpractice “crisis”?

ratios is followed by higher-than-historical increases in insurance premiums and/or decreased supply of insurance. The use of the word “crisis” is controversial because of the severity and urgency it connotes, but the term is widely used in the academic scholarship as well as policy debates. Further details about the current crisis period and previous crises are provided below.

When evaluating whether a state is experiencing a medical malpractice crisis, one should look at both absolute levels of premiums (Figure 2) and the amount of change from year to year. It is also important to juxtapose these costs with how generously providers are reimbursed in the state, as reimbursement affects providers’ ability to meet rising insurance costs.

Figure 2. Average liability premiums for OBGYNs in select “crisis” and “non-crisis” states, 1993–2002



Source: weighted average premium (weighted by insurer market share and population) for a standard primary-layer policy for obstetrician-gynecologists, calculated from data reported in the *Medical Liability Monitor Annual Rate Survey* and in National Association of Insurance Commissioners’ 2004 report by Nordman and Cernak. Where applicable, premiums also include mandatory surcharge to state patient compensation fund. All dollar values were adjusted to 2003 dollars using the GDP deflator. Pennsylvania, Florida and Nevada are “in crisis,” and California, Colorado and Wisconsin are “currently OK” according to the American Medical Association.

Malpractice crises are state-specific phenomena. There are several reasons crises tend to affect states rather than regions or the entire country. First of all, sociodemographic variations across states make for very different tort environments in terms of litigiousness and average award size. In addition, the rules governing malpractice litigation vary across states, malpractice insurance is regulated predominantly by the states and many malpractice insurers serve only one or a small number of states. Current and recent proposals for federal tort reform such as a nationwide cap on noneconomic damages represent a substantial departure from an uninterrupted historical tradition of state control over this area of law.

There are several indicators that a state is entering a malpractice crisis:

Deteriorating financial performance of insurers. Deteriorating financial statistics (Figure 3) are typically the earliest indication of a malpractice crisis. Over time, insurers should adjust their premiums or underwriting practices to correct problems with profitability. If they raise prices sufficiently, the crisis will be resolved for insurers before it is over for health care providers.

What is a medical malpractice “crisis”?

Currently, there are signs that insurers’ financial ratios in many states are stabilizing and some insurers plan no further large increases. But because premiums remain at much higher levels than they were before the crisis, providers perceive the crisis to be ongoing.

Figure 3. Measuring insurers’ financial performance

Financial statistic	Explanation
Loss ratio	The ratio of expected liability on claims to dollars collected in premiums.
Combined ratio	A statistic similar to the loss ratio that incorporates information about the insurer’s administrative expenses.
Incurred losses	The insurer’s estimate of the total value of all claims relating to the policy year.
Operating ratio	A measure comparing premium and investment income to the insurer’s loss costs and expenses.
Paid losses	The actual losses paid by the insurer during the policy year.

Decreased availability of insurance. One flavor of malpractice crisis is a crisis of availability: insurers exit the market, deciding it is not profitable enough or is too volatile and unpredictable (22). Alternatively, insurers get tougher with underwriting—they decline to renew policies for doctors who have experienced a claim, do not write any new policies, or write new policies only for the best risks. Withdrawal of insurers was characteristic of the first malpractice crisis, in 1974–1976, when several companies exited the malpractice insurance markets in certain states. (That problem was corrected by the entrance of many new, physician-owned mutuals (27).) It is also characteristic of the current malpractice crisis. In December 2001, St. Paul’s, the largest malpractice insurer, withdrew from the market. Two other important sources of insurance, PHICO and Frontier Insurance Group, also left, and the Medical Inter-Insurance Exchange (MIIX) decided to write business only in New Jersey (16). Government may respond to availability problems with special insurance programs such as joint underwriting associations, but if physicians are having to turn to these programs, which are typically more expensive than admitted carriers, it’s usually a sign of a problem in the market (23).

Large premium increases. A crisis of affordability occurs when premium costs increase substantially relative to their historical rate of increase (22, 28). Often this is related to insurers exiting the market; those remaining charge more. However, it may occur even with a stable supply of insurance. Affordability problems characterized the second malpractice crisis, in the mid-1980s, and the current crisis. Premiums have been rising in many states since 1999, with some leveling in 2004 (Figure 2). Crises of affordability tend to vary not just across states but also within states by region (urban areas may experience greater increases than rural areas) and clinical specialty (most affected are obstetrics-gynecology, neurosurgery, general surgery, other surgical subspecialties, radiology, orthopedics and emergency medicine).

Provider inability to pass on higher insurance costs to payers: To understand how rising insurance costs are affecting health care providers, it is important to examine both the size of premium increases and what is happening to provider reimbursement. If physicians and hospitals can charge more when their overhead costs increase, there will be no crisis from their perspective. If this pass-through of costs is not possible—for example because a single payer has a dominant market share and refuses to negotiate on this point—then premium hikes hurt providers more.

What is a medical malpractice “crisis”?

Compared to previous malpractice crises, the current era is characterized by greater use of non-fee-for-service reimbursement arrangements and greater payer consolidation. As a result, it is likely much harder for providers to negotiate upward adjustments in reimbursement. Moreover, Medicaid and Medicare reimbursement has been flat or declining for the last several years. The combination of lower income and higher overhead creates a squeeze on providers.

Problems with the malpractice system persist even as malpractice crises come and go. There is enduring dissatisfaction with the medical liability system. Upswings in premiums bring these complaints into sharper relief, pushing the policy debate in the direction of sweeping reform rather than tinkering around the edges. Complaints about the system span its performance on several measures:

- *The system does a poor job compensating patients injured by medical malpractice.* Epidemiological studies of medical injury and malpractice claiming suggest that only about two percent of injuries due to medical negligence become malpractice claims (12, 30).
- *The system has high transaction costs.* For every dollar paid in malpractice insurance premiums, only about 40 cents goes to injured patients (15). The remainder is absorbed by insurers’ administrative expenses and litigation expenses. Compared to other compensation systems that rely on administrative rather than legal processes to direct compensation to injured people, such as Social Security Disability Insurance or worker’s compensation, these transaction costs are extremely high.
- *Awards in malpractice cases are inequitable.* Many plaintiffs with meritorious claims receive nothing, while others receive awards that seem disproportionate to the severity of their injury. Moreover, plaintiffs with similar injuries receive quite different awards, even in the same jurisdiction (8, 29).
- *The system focuses on the misdeeds of individual healthcare providers, but medical errors are often due to breakdowns in whole systems of care.* There is no systems orientation in the liability system, despite the growing awareness of the role of systems in patient safety (11). It is difficult to hold a hospital or other healthcare system liable for a medical error so malpractice awards are usually levied against individual physicians.
- *There is no real evidence that the medical liability system deters negligent care.* The tort system tends to be defended primarily on the basis of its deterrent effect, but the available evidence suggests that deterrence of medical error is limited at best (20).
- *The system has perverse effects on patient safety initiatives.* Rather than deterring error, a heated liability environment may actually impede patient safety improvement by discouraging physicians from participating in initiatives such as adverse event reporting which may help analysts learn why medical errors occur (19, 25).

Patient safety advocates contend that the current focus on tort reform does nothing to address the real “malpractice crisis”: medical errors.

Groups that are concerned with patient rights and patient safety contend that the current policy focus on tort reform and calming insurance markets misses the real malpractice crisis, which is the high prevalence of error in medicine. Today’s malpractice crisis differs from previous crises in that there is a greater public understanding of how often medical error occurs. The Institute of Medicine’s 2000 report, *To Err Is Human: Building a Safer Health System*, brought wide attention to the issue, estimating that 44,000 to 98,000 hospital deaths per year are attributed to medical errors.

What causes malpractice crises?

The new focus on medical errors has changed the tenor of the policy debate about malpractice. Providers have a relatively more difficult time making the case that malpractice litigation is unreasonable (21) and there is a greater demand for reforms that are also safety-enhancing (26). The focus on patient safety has also led state legislators and federal regulators to impose disclosure requirements of adverse events to patients. This raises the stakes of the malpractice crisis for health care providers because widespread disclosure would result in a bigger pool of patients who are aware that they suffered an adverse event and may decide to sue. In short, the patient safety movement has affected both the malpractice environment and the kinds of policy responses that the public is willing to support.

What causes malpractice crises?

Stakeholder groups have rallied behind one of two genesis stories. Physician, hospital and insurer organizations usually characterize the malpractice crisis as being due to rising litigation costs. They argue that the last few years have seen large increases in the average amount paid out on claims (claim severity), the number of claims filed (claims frequency), or both. In contrast, attorney and consumer groups usually offer explanations that center on insurers. They argue that the insurance industry naturally undergoes fluctuations in its fortunes, a phenomenon called the insurance cycle. They point to factors such as decreased investment returns and imprudent pricing decisions by insurers as factors that trigger the onset of unfavorable swings in the market.

What characterizes the arguments of all of these groups is that they stress that *either* claims costs or insurance industry factors have driven the crisis, not both. The best evidence suggests that to the contrary, the crisis has been driven to some degree by both of these phenomena, and that they may be interrelated.

Studies of litigation costs should be interpreted carefully in light of several measurement issues. When interpreting analyses of trends in claim severity and claims frequency, these issues should be taken into consideration (Figure 4).

Figure 4. Measurement issues in analyzing trends in claim severity and claims frequency

Measure	Measurement issue
Award amounts	Award amounts should be adjusted for inflation using a general inflation measure such as the GDP inflator.
Claims frequency	Claims frequency data should be adjusted for the number of practicing physicians by expressing them as the number of claims per physician.
Claim severity vs. insurer losses	<p>Claim severity and insurer losses are different measures and cannot be used interchangeably. Claim severity figures show the average payment per paid claim, based on data about specific claims. Insurer loss data describe the insurer's total expected or actual payouts. When losses go up, it could be because of higher claim severity, higher claims frequency, or both.</p> <p>One type of insurer loss statistic, called incurred losses, represents the insurer's estimate of its total liability for claims relating to that year, not the amount it actually paid. The estimate may prove inaccurate.</p>
Jury verdict amounts	Jury awards may not represent what an insurer actually pays in a case because many verdicts are later reduced. Also, average jury verdict amounts are not representative of average settlement amounts.

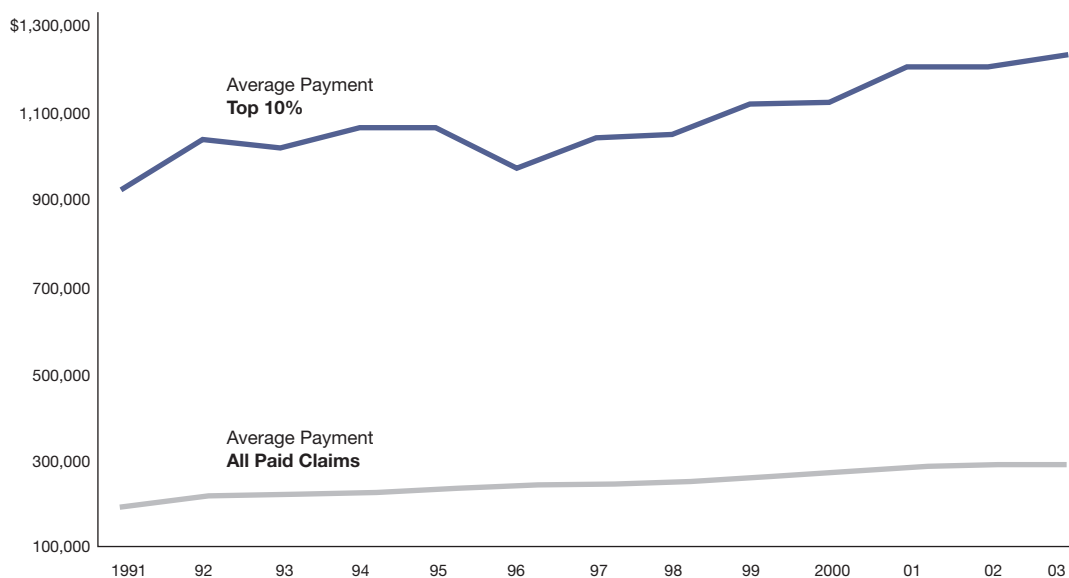
What causes malpractice crises?

Rising claims costs—driven by an increase in average payouts not claims frequency—have contributed to rising premiums, but do not explain the sudden spike in premiums around 1999–2000.

The hypothesis that increased claims costs have contributed to the recent increases in premiums and insurer exits is supported by several academic studies as well as a 2004 report by the National Association of Insurance Commissioners (22, 23, 28, 31). These factors, however, do not appear to have as much explanatory power for the current crisis as for the crises of the mid-1970s and mid-1980s, which were driven by surges in both claims frequency and claim severity.

Figure 5 illustrates trends in the average severity of paid claims using National Practitioner Data Bank data reported in a recent study (14). The National Practitioner Data Bank collects mandatory insurer reports of all malpractice claims on which a payment was made on behalf of physician defendants. The study found that the average severity of paid claims has increased since 1991; however, the rate of growth did not increase during the malpractice crisis period. Total growth in severity was 52 percent in real terms for the entire study period (1991–2003), but only six percent between 2000 and 2003. The increase would be much higher (88 percent) if the figures were not adjusted for inflation (13). Although the top ten percent of awards have grown more in absolute dollar terms, the highest rate of growth has actually been in medium-sized awards. These findings suggest that the burden of claims costs on insurers is growing over time, but did not spike around the time malpractice insurance premiums began to rise rapidly. Hence, other factors probably influenced the recent sharp increases in premiums.

Figure 5. Amount of average paid claim, 1991–2003



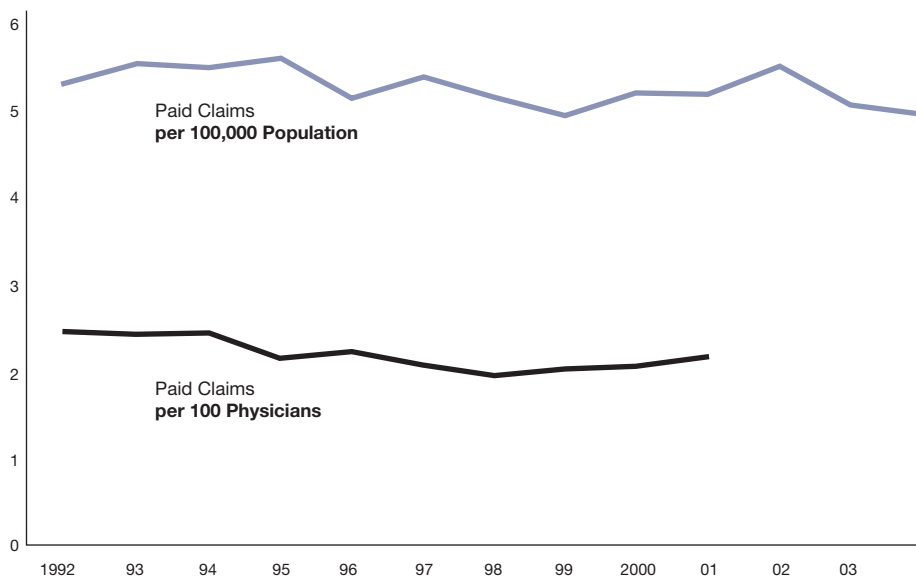
Source: National Practitioner Data Bank data reported in Chandra et al., 2005. All dollar values are adjusted to 2003 dollars.

What causes malpractice crises?

The national claim severity figure masks substantial state-to-state variations. A study of closed claims in Florida found that average severity among paid claims increased significantly between 1999 and 2003 (34). In contrast, a study of Texas closed claims found that severity among “large” paid claims (payments greater than \$25,000 in 1988 dollars) was essentially flat over the 1999–2002 period—before the state’s damages caps were instituted (7). Although these studies are not directly comparable because the Texas study excluded small payments, the results are strongly indicative of variations across states.¹

With regard to claims frequency, there is no evidence that an increase in the number of malpractice claims has contributed to the current malpractice insurance crisis. The Data Bank study found no significant nationwide increase in the number of paid claims between 1991 and 2003 after adjusting for population changes (Figure 6). These findings are corroborated by state-specific studies. A study of two counties in Illinois in the 1994–2004 period similarly found no upward trend in frequency after adjusting for changes in the number of physicians (33). Likewise, the aforementioned Florida study found no increase in the number of paid claims from 1999 to 2003 after adjusting for growth in the number of doctors (34) and the Texas study found that per-physician claims frequency actually declined from 1999 to 2002 (7).

Figure 6. Trends in per-capita frequency of paid malpractice claims, 1991–2003



Source: National Practitioner Data Bank data reported in Chandra et al., 2005; population data obtained by personal communication with the author of that report; and physician supply data from the Bureau of Health Professions Area Resource File.

¹ Including small payments would likely have only a modest effect on the average.

What causes malpractice crises?

The statistical relationship between insurers' claims payments and malpractice premiums is weakly positive. To understand the contribution of claims payments to the malpractice crisis, it is useful to understand the relationship between insurer losses and premiums. Insurers say that their pricing decisions are driven by their forecasts of liability costs in the period covered by the policy. Actuaries forecast these costs based on historical loss data as well as their knowledge of relevant environmental factors in the coming period, such as new tort reforms. This account of how policies are rated suggests that premiums should closely track insurer losses, assuming the actuarial estimates are reasonably accurate.

Some stakeholder groups, however, dispute this account, claiming that premium increases bear no association with trends in losses. They have prepared descriptive analyses suggesting that losses have been stable over the past several years while premiums have gone up (1). Some of these reports have only looked at paid losses, leading insurers to object that incurred losses (the total amount the insurer expects to pay once all claims for which it has exposure have been brought and closed) are a better measure. Additionally, some of these reports have only looked at the largest companies (3), which may not be representative of the experiences and practices of all companies.

A recent study using data on claims payments from 1992 to 2002 from the National Practitioner Data Bank is interesting for its lack of significant findings (4). The study examined the statistical association between payments and premiums by estimating a regression model in which payments were the only explanatory variable. The regression coefficient for the payments variable was positive, but did not achieve conventional levels of statistical significance.

Of note, none of these analyses controls for other factors that may influence premiums. They simply examine the association between payments or losses and premiums. The lack of a strong statistical relationship suggests that other variables are also influential.

The insurance cycle has contributed to the current crisis. Insurance markets undergo periodic business cycles. The insurance cycle has been the subject of considerable attention from economists, but they still argue about why the cycle occurs (Figure 7).

At least one expert analysis suggests that decreased investment returns—an element of the insurance cycle—underlies the current crisis (5). But these declines do not explain the magnitude of premium increases or their variation across states during the malpractice crisis. Thus, investment returns are at best only a partial explanation.

Another strand of the insurance cycle argument relates to insurer pricing decisions. Critics of the industry charge that insurers seeking to maximize their business volume priced their policies unreasonably low in the 1980s and 1990s, taking insufficient notice of their potential liability for incurred-but-not-reported claims. While at least one study supports this argument (9), it better explains the failure of particular companies than increases in prices charged by the remaining companies.

The insurance cycle should not be considered in isolation from claims costs as an explanation for the malpractice crisis. The two are related. Because of the possibility that external shocks such as large increases in claims costs contribute to the insurance cycle (Figure 7), it is reasonable to see a relationship between insurance cycle and claims costs explanations for the malpractice crisis. However, some still present the insurance-cycle as a competing explanation.

What causes malpractice crises?

Figure 7. Understanding the insurance cycle

Insurance markets cycle through periods of low prices and ample supply (soft markets) and periods when prices are high and supply is tight (hard markets). Soft-market periods are characterized by relatively low claims costs and relatively high investment returns. During soft markets, insurers may loosen their underwriting standards and lower their prices in order to attract more business. The more premiums they collect, the more they are able to invest in favorable stock and bond markets.

The cycle turns when insurance company actuaries begin to realize that insurers' financial resources are not going to be sufficient to cover their losses. Companies report signs of financial distress, such as inadequate reserves and deterioration in the financial ratios that measure profitability. They may raise premiums, adopt stricter underwriting standards (turning away physicians they judge to be poor risks), stop taking on any new business or threaten to exit the malpractice insurance market altogether. Health care providers become alarmed at the decreasing affordability and availability of insurance. The situation typically stabilizes within a few years due to some combination of premium increases, reforms that limit insurers' losses, shifts in the amount of market competition or improvements in investment returns.

Insurance cycles reflect a forecasting error, a gap between what insurers thought their losses would be over the short term and what they actually evolved to be. There is disagreement among insurance scholars about why forecasting errors occur. A key point of controversy is the extent to which errors stem from external shocks to the system, such as an unanticipated industry-wide increase in the frequency or average cost of malpractice claims or a downturn in the equity and bond markets. The consequences of such changed circumstances can be severe for medical malpractice insurers because of the long tail of malpractice claims—the fact that claims often are not filed until 2–3 years after the alleged malpractice occurs. The tail problem means that changed assumptions about losses affect not only the claims that have been brought in a given year, but also the claims that are yet to come.

External shocks are believed to lead to a problem called capacity constraint. The amount of capital a company holds limits the amount of insurance it can offer at one time, because the company needs to have money to put into reserve. It is relatively expensive for companies to raise new capital, so if an insurance company loses a lot of capital through a decrease in investment returns or a big increase in claims costs, rather than raising new capital it may just decide to offer less insurance. As the supply of insurance shrinks, the companies that do offer insurance can charge higher prices without fear of losing out to competitors.

While some scholars believe that it is primarily unforeseen external factors that drive insurance cycles, others blame insurance companies. They argue that below-cost prices during soft markets are the result of unrealistic and imprudent actuarial assumptions, and that above-cost prices during hard markets reflect insurers' attempts to maximize profits by charging more than is reasonable. These hypotheses are difficult to test empirically. There does appear to be a temporal correlation, however, between changes in interest rates, changes in litigation costs and the onset of malpractice crises.

In the policy debate over the causes of the malpractice crisis, insurance-cycle explanations are often discussed as though they are wholly separate from an alternative explanation, rising litigation costs. But because one of the fundamental questions surrounding insurance cycles is the extent to which they are driven by external factors such as upswings in claims costs, they shouldn't be considered mutually exclusive explanations.

Recommended reading: (5, 23, 27)

There is evidence that each of these drivers has played a role. The most reasonable conclusion suggested by the evidence is that increased claims costs, inadvised insurer business decisions, decreased investment returns and other insurance-market dynamics have all contributed to this malpractice crisis. These factors also interact. For instance, both poor business decisions and external shocks such as rising litigation costs may contribute to an insurance cycle. Genesis stories that focus on just one explanation, or frame the explanations as mutually exclusive, miss the mark.

Appendix I References

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