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Physicians' Fears Of Malpractice Lawsuits Are Not Assuaged By Tort Reforms

DOI: 10.1377/hlthaff.2010.0135
HEALTH AFFAIRS 29,
NO. 9 (2010): 1585-1592
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ABSTRACT Physicians contend that the threat of malpractice lawsuits forces them to practice defensive medicine, which in turn raises the cost of health care. This argument underlies efforts to change malpractice laws through legislative tort reform. We evaluated physicians' perceptions about malpractice claims in states where more objective indicators of malpractice risk, such as malpractice premiums, varied considerably. We found high levels of malpractice concern among both generalists and specialists in states where objective measures of malpractice risk were low. We also found relatively modest differences in physicians' concerns across states with and without common tort reforms. These results suggest that many policies aimed at controlling malpractice costs may have a limited effect on physicians' malpractice concerns.

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Although analysts disagree about the scope and cost of defensive medicine,¹ physicians consistently report that they often engage in defensive practices and that they feel intense pressure to do so out of fear of becoming the subject of a malpractice lawsuit.²

Fear of being sued may compromise physicians' ability to communicate effectively with patients, particularly in disclosing medical errors.³ Physicians with high malpractice insurance premiums, which reflect a risky liability environment, have lower career satisfaction and report more adversarial relationships with patients than do physicians with lower premiums.⁴ Physicians with high premiums are also more likely to order diagnostic testing and hospitalize low-risk patients in some settings.⁵

Federal health reform has heightened concerns about defensive medicine for two reasons. First, the financial and organizational changes wrought by health reform have introduced new sources of stress for health care providers, sharpening their demands for liability reform in exchange for their support on other health reform measures. Second, because it leads to defensive

medicine, liability risk is an obstacle to health reform's ambition of moving physicians toward more cost-effective care.⁶

In this article we report findings concerning perceptions of malpractice risk among a nationally representative sample of physicians. Our objectives were to assess levels of physician concern about malpractice, examine associations between level of concern and physician practice characteristics, and relate these concerns to objective measures of malpractice risk, including state medical malpractice reform laws.

We found that individual physicians' concerns about their own malpractice risk are pervasive, vary across specialties in ways that are likely to reflect underlying malpractice risk, and reflect objective measures of risk across states to a limited degree. Our results suggest that many popular tort reforms are only modestly associated with the level of physicians' malpractice concern and their practice of defensive medicine. The results raise the possibility that physicians' level of concern reflects a common tendency to overestimate the likelihood of "dread risks"—rare but devastating outcomes—not an accurate assessment of actual risk.

Study Data And Methods

DATA Physician data were obtained from the 2008 Center for Studying Health System Change (HSC) Health Tracking Physician Survey, a nationally representative mail survey of U.S. physicians who provide at least twenty hours of direct patient care per week. The survey was sponsored by the Robert Wood Johnson Foundation. The sample of physicians was drawn from the American Medical Association (AMA) Physician Masterfile and included active, nonfederal, office- and hospital-based physicians. Residents and fellows were excluded, along with radiologists, anesthesiologists, and pathologists.

The survey had a response rate of 62 percent ($N = 4,720$). It asked a broad array of questions regarding physicians' demographic and practice characteristics, as well as subjective questions dealing with such issues as career satisfaction and concerns about malpractice.⁷

To assess the association between malpractice concerns and state-level data on malpractice risk and malpractice premiums, we used secondary data from the National Practitioner Data Bank, available on the Kaiser Family Foundation Web site;^{8,9} the *Medical Liability Monitor*;¹⁰ market share reports published by the National Association of Insurance Commissioners;¹¹ and the AMA Physician Masterfile, obtained from the Kaiser Family Foundation Web site.¹² Malpractice premium data for obstetrics and gynecology, general surgery, and internal medicine from the *Medical Liability Monitor* were weighted by market share data from the National Association of Insurance Commissioners. Information on state tort reforms affecting malpractice litigation was obtained from the database of state tort law reforms, developed by Ronen Avraham.¹³ Each reform was considered separately.

With cross-sectional data, it is difficult to infer a causal association between specific laws and physicians' malpractice concerns. Some states may have adopted multiple laws that changed the way malpractice claims are addressed, including caps on various types of damages, as a way to respond to existing high levels of overall malpractice risk. To capture the temporal relationship between states' policies and physicians' concerns, we used data on medical malpractice laws in effect in 2007, one year before the 2008 physician survey. (See the Appendix for a description of state policies.)¹⁴

ASSESSMENT OF CONCERNS The survey included questions from a malpractice concerns scale developed and validated by Kevin Fiscella and colleagues.¹⁵⁻¹⁹ The questions asked respondents to indicate how strongly they agreed with the following statements based on a five-point Likert scale, ranging from "strongly disagree" to

"strongly agree": (1) I am concerned that I will be involved in a malpractice case sometime in the next ten years. (2) I feel pressured in my day-to-day practice by the threat of malpractice litigation. (3) I order some tests or consultations simply to avoid the appearance of malpractice. (4) Sometimes I ask for consultant opinions primarily to reduce my risk of getting sued. (5) Relying on clinical judgment rather than on technology to make a diagnosis is becoming risky because of the threat of malpractice suits.

We computed the percentage of statements with which each respondent agreed or strongly agreed, across the five statements. The resulting composite score is reported on a scale of 0 to 100.

We compared regression-adjusted means of the composite score across respondents with different individual and practice characteristics, as well as across physicians in different groups of states as defined by values on various measures of malpractice risk, including enacted tort reforms. We also used regression-adjusted means to compare composite scores between specialty groups and to compare physicians across tertiles (thirds) of statewide malpractice risk.

We controlled for differences in the characteristics of physicians, practices, and patient panels. Those characteristics included physician's sex, years in practice, and practice type; number of physicians in practice; percentage of practice revenue from Medicare and from Medicaid; percentage of patients who suffer from chronic diseases; and percentage of patients who are members of racial and ethnic minority groups. Generally, adjusted means differed little from unadjusted ones.

We further report the results of two distinct subscales representing malpractice concerns (statements 1, 2, and 5 on the malpractice concerns scale) and defensive medicine (statements 3 and 4 on the scale). All analyses used survey weights to adjust for probability of selection and differential survey nonresponse.

LIMITATIONS Our study has limitations. Our measure of malpractice insurance premiums is at the state level and does not reflect the premium burden experienced by individual respondents. Similarly, we do not have any information on individual physicians' awareness of individual tort reforms intended to limit malpractice claims.

We have no measure of claims that are closed but did not result in payment, which nonetheless might cause distress and professional and financial loss to physicians. Performing a statistical adjustment used in previous studies to approximate the number of closed claims did not reveal new significant associations with tort reforms.²

Our sample population excludes radiologists

and anesthesiologists—specialists known to have high levels of concern about malpractice. Finally, our survey measures cannot be interpreted as a direct measurement of defensive medical practices. Rather, our aim was to measure physicians' level of fear or concern about liability, which is a subjective construct.

Study Results

CONCERN ABOUT MALPRACTICE LIABILITY Concern about malpractice liability is pervasive among physicians: 60–78 percent of them expressed agreement or strong agreement with each of the five statements (Exhibit 1). Physicians agreed most strongly with the statement that it is becoming increasingly risky to rely on clinical judgment, rather than diagnostic testing; 78 percent expressed agreement or strong agreement with that statement. Only 11 percent did not agree with any of the statements.

VARIATIONS IN CONCERN ACROSS SPECIALTIES Malpractice concern varied considerably by specialty. Although we lack objective data on malpractice risk or premiums by specialty, physicians in specialties generally thought to be at higher risk for malpractice claims—such as emergency physicians and obstetrician-gynecologists—expressed greater concern (Exhibit 2). Physicians who disagreed or strongly disagreed with the five statements were more likely to be psychiatrists or general pediatricians.

This pattern was similar for the malpractice concern and defensive medicine subscales. There was some variation among specialties, but it does not appear to be consistent.

VARIATION ACROSS OTHER PHYSICIAN AND

PRACTICE CHARACTERISTICS As shown in Exhibit 3, the level of malpractice concern was associated with several physician and practice characteristics (only characteristics for which there were significant differences are shown in the exhibit; the full set of results is available in Appendix Exhibit 2).¹⁴ Physicians with fewer than five years of practice experience had significantly greater malpractice fear—average concern score of 70.4 points—than physicians with more than ten years of experience—average concern score of 64.4 points.

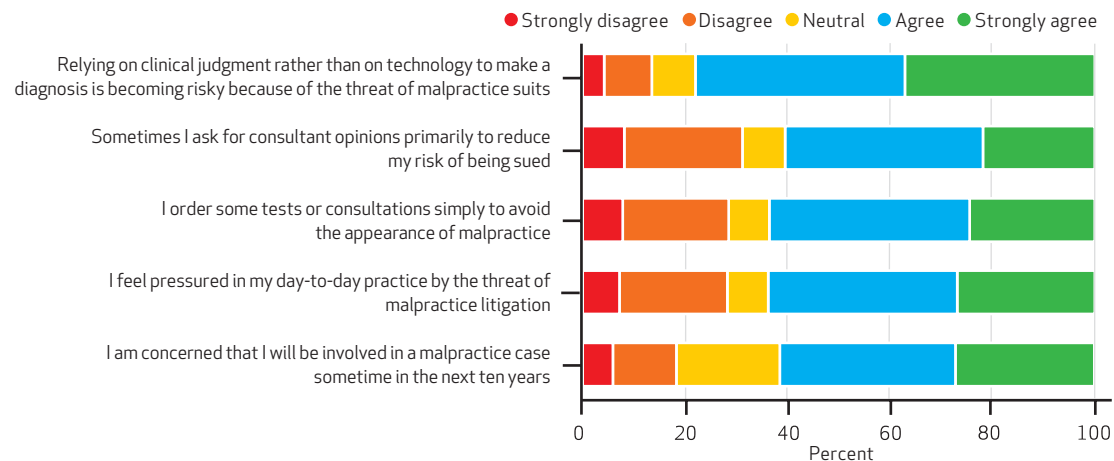
Practicing in a larger group was associated with greater malpractice concern. Physicians in practices with eleven to fifty doctors (with an average concern score of 68.8 points) expressed higher levels of concern than did physicians in solo or two-person practices (with an average concern score of 65.1 points). Group/staff health maintenance organization (HMO) physicians had average concern scores of only 60.9 points. However, physicians in this kind of practice reported undertaking defensive medicine practices that were not significantly different from those used by any other group.

The proportion of patients with a chronic illness affected levels of malpractice concern. Physicians whose practices were predominantly (more than 50 percent) patients with chronic illnesses had average concern scores of 66.8 points, while physicians whose practices had relatively few such patients (less than 10 percent) reported average concern scores of 60.8 points.

The use of health information technology (IT) was not associated with significant differences in malpractice concern. This was true whether health IT use was determined by the use of an

EXHIBIT 1

Physicians' Level Of Agreement With Items In The Malpractice Concerns Scale, 2008



SOURCE Center for Studying Health System Change (HSC) Health Tracking Physician Survey, 2008.

EXHIBIT 2

Adjusted Percentage Of Items In The Malpractice Concerns Scale With Which Physicians Agreed Or Strongly Agreed, By Specialty, 2008

| Specialty | % of physicians | Composite score ^a | Defensive medicine subscore ^b | Malpractice concern subscore ^c |
|---|-----------------|------------------------------|--|---|
| All physicians | 100.0 | 65.4 | 62.0 | 67.7 |
| Emergency physicians | 5.8 | 82.0*** | 77.3*** | 83.3*** |
| Obstetrician-gynecologists | 6.6 | 77.2*** | 68.5 | 81.0*** |
| Surgical specialists | 21.3 | 71.4*** | 65.5 | 75.3*** |
| Adult primary care physicians (reference group) | 31.1 | 66.4 | 66.5 | 65.8 |
| Pediatric specialists | 2.1 | 59.6 | 50.8*** | 62.5 |
| Adult cognitive specialists ^d | 10.3 | 59.0*** | 55.8*** | 61.7** |
| Adult procedural specialists ^d | 8.2 | 58.6*** | 51.5*** | 65.8 |
| General pediatricians | 7.6 | 57.4*** | 56.3*** | 56.3*** |
| Psychiatrists (adult and pediatric) | 6.9 | 51.4*** | 43.8*** | 54.2*** |

SOURCE Center for Studying Health System Change (HSC) Health Tracking Physician Survey, 2008. **NOTES** Adjusted for physician's sex, years in practice, and practice type; number of physicians in practice; percentage of revenue from Medicare and from Medicaid; percentage of patients with chronic illnesses; and percentage of patients who are members of a racial or ethnic minority group. Percentages may not add to 100 percent because of rounding. ^aPercentage of statements with which physicians agreed or strongly agreed. ^bPercentage of statements related to defensive ordering of tests or consultations with which physicians agreed or strongly agreed. ^cPercentage of statements related to overall concern regarding malpractice with which physicians agreed or strongly agreed. ^dCognitive specialists' primary role involves providing diagnostic or therapeutic advice to reduce clinical uncertainty or recommend a course of treatment. Procedural specialists' primary role involves performing a technical procedure to aid diagnosis, cure a condition, identify and prevent new conditions, or palliate symptoms. See Forrest C. A typology of specialists' clinical roles. *Arch Intern Med.* 2009;169(11):1062-8. ** $p \leq 0.05$ *** $p \leq 0.01$

electronic medical record; the use of an electronic record with clinical decision support; or the use of an electronic record with automated reminders, e-prescribing, decision support, and other features. Variation in response patterns across the subscales was minimal.

STATE LIABILITY ENVIRONMENT We compared levels of malpractice concern in states with varying levels of medical liability, as represented by several different measures (Exhibit 4). Results that were not significant are not shown. Full results are in Appendix Exhibit 3.¹⁴

There is wide state-to-state variation in physicians' risk of incurring a malpractice claim—through either a settlement or a trial verdict—as well as the average size of paid claims.²⁰ The average actual malpractice risk in the one-third of states with the highest values (as defined by the number of paid claims multiplied by the size of the awards) is more than three times that found in the third of states with the lowest values—\$5,081 versus \$1,662 per physician. Average actual malpractice risk is defined as the rate of malpractice claims per 1,000 physicians that providers or their designees must pay, multiplied by the average dollar amount of the award.

Although physicians' malpractice concern was positively and significantly associated with average malpractice risk, the relationship is fairly weak in light of the more than threefold differ-

ence in objective measures of risk. Physicians in the highest-risk states had survey composite scores only 4.3 percentage points higher than those practicing in the third of states with the lowest risk: 67.8 percent versus 63.5 percent ($p < 0.01$). These general trends also apply to the components of malpractice risk—the paid claims rate and average award size. However, only the comparison between the highest and lowest one-third is statistically significant.

The same pattern applies to malpractice insurance premiums. There is nearly a threefold difference between average specialty-adjusted malpractice premiums in the bottom and top thirds of states. Yet physician survey composite scores in the third of states with the highest premiums were 66.2 percent—just 5.4 percentage points higher than comparable scores in the third of states with the lowest premiums, where they were 60.8 percent ($p < 0.01$).

We examined the relationship of malpractice concern to several state tort reforms (Appendix Exhibit 1).¹⁴ Empirical research has demonstrated that a few reforms—most notably, caps on noneconomic damages—can affect liability insurance premiums and the use of services considered to be indicative of defensive medicine.²¹ Overall, physicians' malpractice concerns appear to be relatively insensitive to their states' malpractice reforms, including caps on noneco-

EXHIBIT 3

Adjusted Percentage Of Items In The Malpractice Concerns Scale With Which Physicians Agreed Or Strongly Agreed, By Physician And Practice Characteristics, 2008

| Characteristic | Percent of physicians | Composite score ^a |
|--|-----------------------|------------------------------|
| All physicians | 100.0 | 65.4 |
| Years in practice | | |
| Fewer than 5 (ref) | 8.2 | 70.4 |
| 5–10 | 21.1 | 66.9 |
| More than 10 | 70.7 | 64.4** |
| Sex | | |
| Male (ref) | 72.5 | 67.2 |
| Female | 27.4 | 60.7*** |
| Percent of patients with a chronic illness | | |
| <10% (ref) | 9.9 | 60.8 |
| 10%–49% | 28.4 | 64.1 |
| ≥50% | 61.7 | 66.8*** |
| Practice type/number of physicians | | |
| 1–2 physicians (ref) | 32.0 | 65.1 |
| 3–10 physicians | 24.2 | 67.4 |
| 11–50 physicians | 9.7 | 68.8** |
| ≥51 physicians | 6.1 | 67.6 |
| Group/staff HMO | 3.5 | 60.9 |
| Hospital, CHC, or other | 24.5 | 62.7 |

SOURCE Center for Studying Health System Change (HSC) Health Tracking Physician Survey, 2008. **NOTES** Excluding the characteristic of interest, reported malpractice concern scores are adjusted for physician specialty, sex, and years in practice; practice type and number of physicians; percentage of revenue from Medicare and from Medicaid; percentage of patients who suffer from chronic disease; and percentage of patients who are members of racial or ethnic minority groups. This exhibit omits characteristics for which no significant differences were found at the 0.05 level. The omitted characteristics are percentage minority patients, use of health information technology with clinical decision support, routine use of full electronic medical record, and routine use of full electronic medical record with decision support. We also omitted urbanicity of practice location. We tested for differences between urban areas with a population of one million or more—the reference group—and urban areas with a population of less than one million and nonurban areas. The only difference we detected compared to the reference group was in nonurban areas ($p < 0.05$) on the malpractice concern score. Full results are available in Appendix Exhibit 2, which can be accessed by clicking on the Appendix link in the box to the right of the article online. Percentages may not add to 100 percent because of rounding. HMO is health maintenance organization. CHC is community health center. ^aPercentage of statements with which physicians agreed or strongly agreed. Defensive medicine and malpractice concern subscores are in Appendix Exhibits 2 and 3, available online as above. ** $p \leq 0.05$ *** $p \leq 0.01$

nomic and punitive damages. Again, variation across subscales was minimal.

States that had established caps on total damages or abolished joint-and-several liability²² were associated with modestly lower levels of physician malpractice concern. Differences associated with other tort reforms, such as collateral-source rule reform and periodic payment reform,²³ were not statistically significant. Two reforms, split recovery and patient compensation funds,²⁴ were associated with significantly higher levels of concern.

Discussion

This study of a nationally representative sample of physicians found high levels of concern about the risk of malpractice litigation among physicians across a range of specialties, practice settings, and geographic areas. Physicians in specialties generally considered to be at highest

risk for costly malpractice claims, such as emergency medicine, expressed the greatest concern.

The relationship between physicians' level of malpractice concern and some objective measures of the riskiness of the state liability environment, such as malpractice premium levels and the risk of incurring a paid malpractice claim, was statistically significant. But the magnitude of these associations was very modest.

To put our results in perspective, the largest difference in physician concern across tertiles—or thirds—of malpractice risk was 5.4 points on a 100-point scale. This is roughly equivalent to the observed difference in concern between an average general surgeon and an average primary care provider, or one-third of the difference between the average emergency physician and the average primary care provider.

For other measures, such as the number of paid claims and the average amount paid per claim, physicians with twice the objective mea-

EXHIBIT 4

Physicians' Adjusted Agreement With Items In The Malpractice Concerns Scale, By Characteristics Of State Malpractice Environment, 2008

| Independent variable | Value/category | Percent of physicians | Composite score ^a |
|---|--------------------------------|-----------------------|------------------------------|
| CLAIMS-BASED AND PREMIUM-BASED MEASURES OF MALPRACTICE RISK | | | |
| Number of paid malpractice claims per 1,000 physicians ^{b,c} | Bottom third (ref) (5.5) | 26.6 | 64.5 |
| | Top third (14.6) | 34.2 | 67.4** |
| Average payment per paid claim ^{b,c} | Bottom third (ref) (\$203,431) | 32.2 | 64.5 |
| | Top third (\$467,290) | 37.4 | 66.9** |
| Malpractice claim risk per physician (claims rate times average award) ^b | Bottom third (ref) (1,661,786) | 45.6 | 63.5 |
| | Middle third (2,672,158) | 14.5 | 64.6*** |
| | Top third (5,081,207) | 39.9 | 67.8*** |
| Malpractice premium ^d (annual) | Bottom third (ref) (\$24,026) | 14.6 | 60.8 |
| | Middle third (\$41,801) | 38.2 | 65.1*** |
| | Top third (\$70,227) | 47.2 | 66.2*** |
| STATE-LEVEL TORT REFORMS^{e,f} | | | |
| Cap on punitive damages | No | 39.4 | 64.3 |
| | Yes | 60.6 | 66.1 |
| Caps on total damages | No | 91.9 | 65.7 |
| | Yes | 8.1 | 61.7** |
| Split recovery | No | 88.2 | 64.9 |
| | Yes | 11.8 | 68.8** |
| Patient compensation fund | No | 80.8 | 64.8 |
| | Yes | 19.2 | 67.9** |
| Joint-and-several liability abolished | No | 24.3 | 67.4 |
| | Yes | 75.7 | 64.7** |

SOURCES Center for Studying Health System Change (HSC) Health Tracking Physician Survey, 2008; National Practitioner Databank; 2009 *Medical Liability Monitor* Annual Rate Survey; Area Resource File, 2008; and Database of State Tort Law Reforms, 3rd edition.

NOTE Percentages may not add to 100 percent because of rounding. ^aPercentage of statements with which respondents agreed or strongly agreed. Defensive medicine and malpractice concern subscores are available in Appendix Exhibits 2 and 3, available by clicking on the Appendix link in the box to the right of the article online. ^bNumber of paid claims and average payment per paid claim were obtained from Statehealthfacts.org, which used the National Practitioner Databank to generate state-level estimates as of June 2009. These data include both trial verdicts and settlements. ^cThe cutoff points for the middle third for "Number of paid malpractice claims per 1,000 physicians" and "Average payment per paid claim" were 8.2 and \$302,035, respectively. Results for these categories were not significantly different from the reference groups at the 0.05 level and are omitted here. Full results are available in Appendix Exhibit 3, as in Note b. ^dMalpractice premiums were calculated by HSC as a weighted average of premiums reported by individual companies based on market share data from the National Association of Insurance Commissioners and premium data from the 2009 *Medical Liability Monitor* Annual Rate Survey. Regionally reported data were weighted by the number of physicians in the area from the 2008 Area Resource File. Weighted estimates did not differ greatly from unweighted estimates. ^eState reforms for which there were no statistically significant differences at the 0.05 level are not shown. Full results are in Appendix Exhibit 3, as in Note b. ^fPresence of various tort reforms: Database of State Tort Law Reforms, 3rd edition. For definitions, see Appendix Exhibit 1, as in Note b. ** $p \leq 0.05$ *** $p \leq 0.01$

sure of malpractice risk had levels of concern (as measured by concern scores) that were only 2.9 percent and 2.5 percent, respectively, higher than those of their peers at lower risk.

Malpractice concern was somewhat lower among physicians who practiced in states that had established caps on total damages or abolished joint-and-several liability. However, the presence of other types of tort reforms in the state, including caps on noneconomic damages, did not significantly reduce levels of physician concern, relative to states without such reforms.

MALPRACTICE AS 'DREAD RISK' The high level of malpractice concern among physicians in our

sample, even those practicing in relatively low-risk environments, is striking.^{25,26} Although previous studies reflected conditions during a malpractice insurance "crisis" in 2001–5 marked by deteriorations in the availability and affordability of insurance, our results indicate high levels of concern even during a period of relative stability in malpractice insurance.

Our survey asked about the perceived threat of being sued rather than about difficulties securing insurance. But the two may be linked in many physicians' minds, particularly in states where underwriting practices changed during the crisis, making it harder for those who incurred a

claim to renew their policies. Even considering these difficulties, however, the level of liability concern reported by physicians is arguably out of step with the actual risk of experiencing a malpractice claim.

It is possible that physicians lack access to accurate information about their absolute risk of being sued or their relative risk compared to their peers in other specialties or geographic areas. Advocacy efforts by medical professional societies in support of tort reform may contribute to this problem by conveying the impression that most or all states and specialties are in crisis and require additional legal protection.

A second possible explanation is that physicians exaggerate their concern about being sued, using it as a justification for high-spending behavior that is rewarded by fee-for-service payment systems. However, we found that levels of concern were fairly high even among physicians in staff-model HMOs, who have less financial incentive to overuse services. Moreover, some defensive medical practices, such as referring patients for consultations, do not generate reimbursement for the referring physician.

A third explanation relates to well-documented human tendencies to overestimate the risk of rare events and to be particularly fearful of risks that are unfamiliar, potentially catastrophic, or difficult to control. Lawsuits are rare events in a physician's career, but physicians tend to overestimate the likelihood of experiencing them.²⁷ Surveys of the public demonstrate much higher levels of fear of dying in an airplane crash than in a car accident, even though the latter fate is far more likely. Severe, unpredictable, uncontrollable events are associated with a feeling of dread that triggers a statistically irrational level of risk aversion.²⁸

Physicians may be subject to this phenomenon when it comes to malpractice suits. Because of the rarity of suits, most physicians have little familiarity with them. The consequences of being sued are perceived as potentially disastrous to one's medical reputation, psychological well-being, and financial stability. Finally, physicians tend to view lawsuits as random events, unpredictable and uncontrollable, because they are not viewed as related to the quality of care provided.²⁹ These factors may lead to a fear of suits that seems out of proportion to the actual risk of being sued.²⁹

POLICY IMPLICATIONS Whether justified or not,

physicians' concerns about liability risk are a policy problem because defensive practices raise health care costs and may subject patients to unnecessary tests and procedures. Although many medical professional organizations continue to press for liability-limiting tort reforms, we found that many such reforms were not associated with a significant difference in physicians' malpractice concerns. In particular, the most strongly advocated reform, capping noneconomic damages, was not associated with a significant difference in perceived malpractice risk.

This finding is at odds with other research demonstrating that damages caps are associated with reduced defensive medicine, as measured by lower intensity of health service use.³⁰ If the causal mechanism linking tort reforms and service use is physicians' perception that the reforms reduce their malpractice risk, one would expect a more robust relationship between these reforms and the perceived threat of malpractice in surveys such as ours. It is likely that physicians' assessment of their risk is driven less by the true risk of malpractice claims or the cost of malpractice insurance, and more by the perceived arbitrary, unfair, and adversarial aspects of the malpractice tort process—which most traditional state reforms do not address.

Recently funded federal demonstration projects will test innovative approaches to liability reform, which may prove more helpful than traditional approaches.³¹ These experiments include alternatives to the usual civil litigation process by emphasizing early settlement of claims through less adversarial processes. Provisions in the new federal health reform law also may address aspects of the practice environment that contribute to defensive medicine. For example, reforms that promote bundled payments for health care services may create a financial incentive for providers to omit certain widely used tests and procedures of questionable usefulness.

Although alterations in reimbursement policy could prove a powerful lever for reducing overuse of care,¹ the threat of lawsuits will remain a dread risk for physicians—and will undermine reimbursement reforms—until comprehensive liability reform is adopted. Reimbursement reform and liability reform therefore should be seen as complementary strategies—each indispensable—for reducing overuse of health services and encouraging physicians to adhere to recommendations for evidence-based care. ■

The authors gratefully acknowledge the support of the Robert Wood Johnson Foundation. Michelle Mello has served

as a consultant to the American Medical Risk Insurance Company. The views expressed in this paper are those of the

authors and do not necessarily represent the views of the Department of Veterans Affairs.

NOTES

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- 22 Where multiple defendants are found to share in the blame for a negligent episode, joint-and-several liability allows any defendant, even one who played only a minor role, to be held additionally liable for the amount owed by any other defendant who is unable to pay. Joint and several liability reform ends this practice, so that each defendant can be held liable only for his or her personal role in the negligence.
- 23 Collateral-source rule reform allows compensation an injured patient receives from other sources, such as health insurance, to be deducted from the amount a defendant found liable is required to pay. Periodic payment reform allows defendants or their insurers to pay out a settlement over a long period of time rather than in a lump sum.
- 24 Split recovery requires that some portion of punitive damages be deposited in a general fund established by the state. Patient compensation funds are state pools established with physician contributions or taxes that supplement or replace payments made by physicians or their malpractice insurers.
- 25 Physicians' perception of the likelihood that they will be involved in a lawsuit and their stated willingness to take steps they feel will lower their risk of being sued are much higher than the actual risk they will be sued. Studdert DM, Mello MM, Brennan TA. Medical malpractice. *N Engl J Med*. 2004;350(3):283-92.
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