MEDICAL MALPRACTICE
A MONOGRAPH OF CURRENT INFORMATION

OFFICE OF INSPECTOR GENERAL

OFFICE OF ANALYSIS AND INSPECTIONS

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OFFICE OF INSPECTOR GENERAL

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OFFICE OF ANALYSIS AND INSPECTIONS

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This monograph on medical malpractice was prepared to provide the Inspector General and other interested parties with a brief synthesis of current information regarding the malpractice insurance problem facing our country.

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PREFACE

This monograph presents a summary of information derived from secondary sources on the legal and medical aspects of malpractice. It (a) describes the rise both in the costs of malpractice insurance premiums and in claims paid, (b) discusses the types of procedures and medical specialties most likely to lead to the filing of claims, (c) reviews several studies which have analyzed the extent to which poor quality of care leads to malpractice suits and (d) examines current efforts within the Department of Health and Human Services (HHS) to deal with the malpractice problem.

We anticipate that findings in this report may provide a basis for further studies or inspections on one or more aspects of the malpractice problem.

INTRODUCTION

Medical malpractice is a complex and highly visible problem that remains unresolved despite comprehensive study, tort reform in all States and improvement of professional standards over the past decade. The General Accounting Office (GAO) has stated that medical malpractice is a problem with "no easy answer or quick fix."

Malpractice refers to any health care provider's behavior which fails to meet current standards of care and which leads to an avoidable adverse medical outcome, whether a legal determination has been made or not. In its legal sense, the term malpractice refers to a judicial determination under State tort law that there has been a negligent failure to adhere to the current standards of medical care, resulting in injury to the patient. Usually a jury (a) sets the standard of care, based on expert testimony and broad guidance from the judge, and (b) determines whether the physician's conduct conformed to the standard of care and whether the physician's negligence caused the patient's injury. Finally, the jury determines both economic damages, such as past and future medical expenses and lost earnings, and noneconomic damages, such as pain and suffering or loss of a family member. An insurance company then pays a claim based on these determinations, although sometimes parties agree to resolve claims prior to a judicial determination.

The "malpractice problem" also consists of at least two distinct, although interrelated, issues: (a) how to reduce the incidence of malpractice and (b) the consequences of increased

malpractice on liability insurance costs, on fees and charges and on access to care. Reducing malpractice requires physician credentialing, medical licensure and discipline and quality of care assurance through peer review. Addressing malpractice consequences requires tort law reforms and alternatives to tort litigation. This monograph deals with both dimensions of the malpractice problem.

The malpractice problem is reflected in the growing number of claims filed, the increase in the size of court awards and settlement amounts and the rising cost of insurance premiums.

For example, a recent survey by Medical Economics found that:

- Six out of 10 doctors say they have been sued.
- The average malpractice settlement approached $81,000 in 1987.
- Although the average malpractice premium is $17,000, rates in some specialities are as high as $200,000.

Measuring the incidence of malpractice is difficult. Such a measurement cannot be based on the number of claims filed, because substandard medical care is not found in every case. Court awards and settlements do not gauge all instances of malpractice, because the cost of litigation discourages some valid claims and encourages settlement in cases where malpractice may not have occurred. Payment of a claim does not necessarily provide evidence of malpractice, because an adverse medical outcome leading to a claim may exist even though the physician treats the patient in accordance with current standards of care. Finally, it is not clear whether the increased frequency of suits reflects (a) a greater propensity for actual victims to seek compensation or (b) an increased willingness of the courts to expand the definition of malpractice and thus expand the pool of potential claimants.

Several comprehensive studies on the problem of medical malpractice have been completed in the past 3 years:

- In 1986-1987, GAO issued a series of reports presenting information relating to increases in the cost of medical malpractice insurance and other aspects of the malpractice problem. Included in the GAO series was a study of a sample of malpractice claims closed in 1984 by 25 insurers. This report is a primary source for much of the current empirical data on the frequency of claims, amounts paid and types of alleged negligence.

- In August 1987, HHS issued its "Report of the Task Force on Medical Liability and Malpractice" which contained a summary of available information on malpractice and an agenda for departmental action.
- The Duke University School of Law issued a series of papers from a 1986 Symposium "Medical Malpractice: Can the Private Sector Find Relief?"
- The Institute of Civil Law of the Rand Corporation issued a series of reports and statistical analyses.
- In 1988, the Office of Inspector General (OIG) conducted a study on quality of care as part of the "National DRG Validation Study."

Two significant older reports are:

- the 1973 Health, Education and Welfare (HEW) Report of the Secretary's Commission on Medical Malpractice and
- a 1977 joint report by the California Medical Association and the California Hospital Association, one of the few studies to examine substandard medical care based on a sample of hospital records rather than suits filed.

Most of the information in this report is derived from these studies. We also conducted telephone interviews with some study authors for interpretations of data and updates on the most current developments.

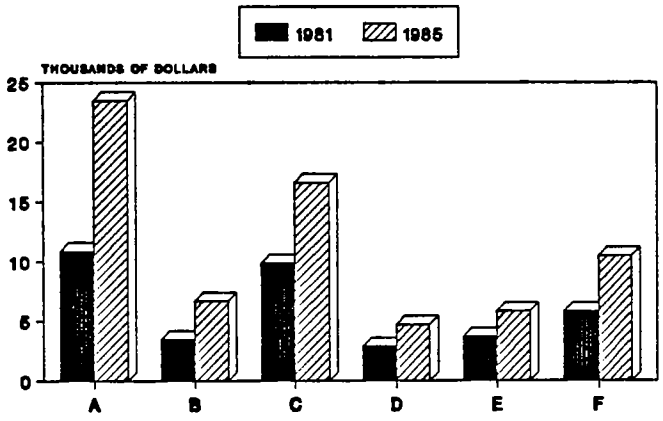
A draft version of this report was circulated to key staff of the Department's Task Force on Medical Liability and Malpractice. Their comments are reflected in this final report.

FINDINGS

Malpractice Premiums, Claims Frequency and Severity Continue to Rise

According to GAO, malpractice insurance costs for physicians and hospitals rose from $2.5 billion in 1983 to $4.7 billion in 1985. As a percentage of average gross business expenses, insurance costs for physicians rose from 8 to 10 percent during this period. For some specialties, the increase has exceeded 100 percent. As of 1985, the highest insurance rates were concentrated in three specialties (neurosurgery, orthopedic surgery and obstetrics/gynecology) and in five places (New York, Florida, Illinois, Michigan and the District of Columbia).

AVERAGE ANNUAL PREMIUM

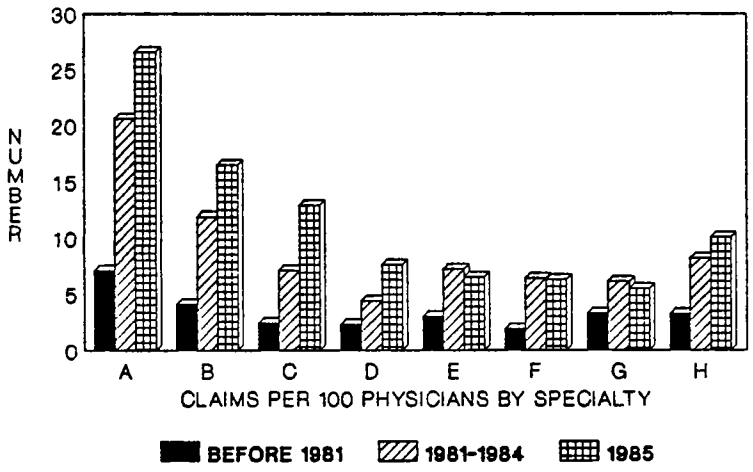


A-OB/GYN; B-FAMILY PHYSICIAN
C-GENERAL SURGEON; D-PEDIATRICIAN
E-INTERNIST; F-ALL PHYSICIANS

The Commissioner of the Minnesota Department of Commerce recently completed a controversial study that found that trends in malpractice claims and settlements in Minnesota, North Dakota and South Dakota do not justify the significant increases in malpractice premiums. The increased premium costs are passed on to patients and also result in major problems of access to high risk specialties. For example, the risk of malpractice suits is cited by 12.3 percent of obstetricians/gynecologists and 23.3 percent of family physicians as the reason for dropping their obstetrical practices. Problems of access are especially acute for low income and Medicaid patients.

As the following chart illustrates, the frequency of claims made against all physicians rose from 3.2 claims per 100 physicians prior to 1981 to 10.1 claims per 100 physicians in 1985. Total compensation--awards and settlement payments--grew from $391.6 million in 1979 to $1.5 billion in 1985.

GROWTH IN INCIDENCE OF CLAIMS



State Tort Reforms Have Slowed--but Have Not Stopped--the Growth in Severity and Frequency of Claims

Since the mid-1970s, all States have enacted one or more tort law reforms or alternatives to litigation to insure the availability and reduce the cost of malpractice insurance. The more common reforms include:

Statutes of Limitations: Statutes of limitations prescribe the time within which a lawsuit must be initiated. Many States have changed their statutes of limitations to require that actions involving medical injury begin within a specified number of years from the date the injury occurs or from the time of discovery of the injury. (In most States, actions involving minors as plaintiffs must begin within a specified number of years from the time a minor reaches age 18 or 19.)

Pretrial Screening: States have established boards or commissions to hear and rule on claims submitted prior to a trial, in the hopes the claims will be settled out of court. Decisions may or may not be admissible if the case does go to trial at a later time.

Collateral Source: Malpractice awards must be reduced by compensation received from collateral sources in some States.

Limits on Liability: The maximum award per patient injury or death has been limited in several States; in most, the limitation applies only to noneconomic losses.

Joint and Several Liability: Some States have limited the application of laws creating joint and several liability, while others have abolished them completely. Joint and several liability laws permit plaintiffs to hold one defendant liable for the full amount of an award even when that defendant was only slightly negligent and was one of several negligent providers. These laws have been used by plaintiffs to collect from defendants known to have large assets, regardless of relative fault.

Arbitration: Arbitration is an alternative to litigation for resolving disputes. As of 1987, 18 States had statutes permitting voluntary, binding arbitration in malpractice suits.

Attorney Fee Limitations: In malpractice cases, plaintiffs usually pay their attorneys on a contingent fee basis. Many States have sought to regulate the size of the fee, usually to a flat percentage of the plaintiff's recovery or on a sliding scale with the percentage decreasing as the size of the recovery increases.

Periodic Payments: Traditionally, settlements in malpractice cases have been awarded in lump sums. Many States now allow courts to make awards for future losses in installments.

A 1986 study by Patricia Danzon for the Rand Corporation presents empirical evidence concerning the effects of these and other tort reforms. The study found:

1. States enacting shorter statutes of limitations have had less growth in claims frequency. On average, reducing the statute of limitations for adults by 1 year reduces claims frequency by 8 percent.

2. Statutes permitting or mandating the offset of collateral benefits have reduced claims severity by 11 to 18 percent and claims frequency by 14 percent.

3. Caps on awards have reduced severity by 23 percent.

4. Arbitration statutes appear to have increased claim frequency but reduced average severity.

Of the other reforms analyzed in the Rand study, including screening panels to sort out whether claims are justified and placing limits on contingent fees, none appears to have had any systematic effect on claim frequency or severity.

Improper Diagnosis, Surgery and Treatment Account for Most Malpractice Claims

Nationwide, the most common grounds for filing malpractice claims have been improper diagnoses, improper surgical procedures and treatment problems. In 1985-1986, for example, the three most common reasons for filing claims against the St. Paul Fire and Marine Insurance Company, the largest malpractice insurer, were faulty post-operative surgical procedures, improper obstetric treatment and failure to diagnose cancer. During that period, however, plaintiffs received awards in only 30 percent of the cases. Table 1 shows the type of claims and awards most frequently made against providers insured by this company in 1985-1986.

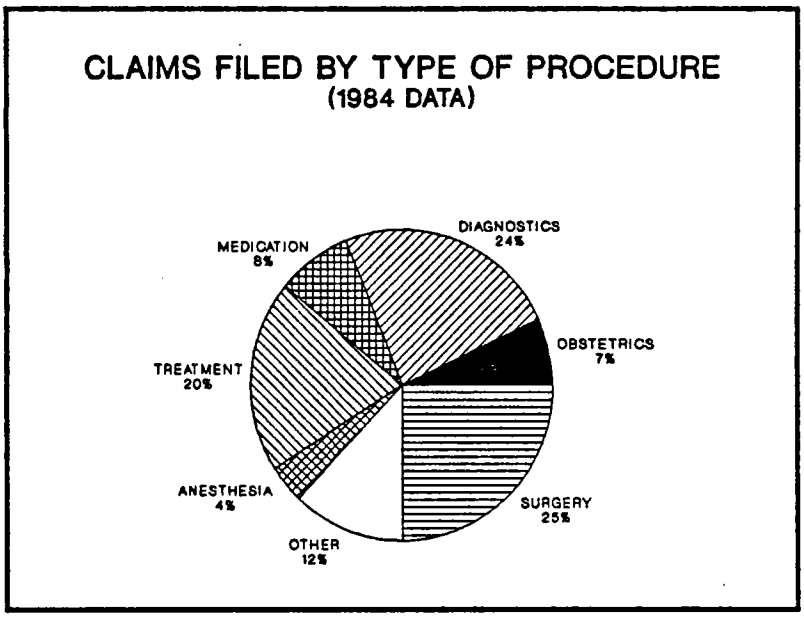
TABLE 1. CLAIMS AND SETTLEMENT COSTS BY CAUSE OF ACTION

	PERCENT OF ALL CLAIMS*	AVERAGE COST **
Post operative surgical procedures	29.4	$042,670
Improper obstetric treatment	14.3	103,124
Failure to diagnose cancer	11.1	70,865
Inadvertent surgical act	8.7	47,033
Failure to diagnose fracture	7.0	4,894
Improper treatment because of drug side effect	6.6	49,379
Inappropriate surgical procedure	6.0	40,477
Other procedures	16.9	66,352

*Represents percent of the 6,333 claims in this sample.
**Legal costs plus trial award or settlement.

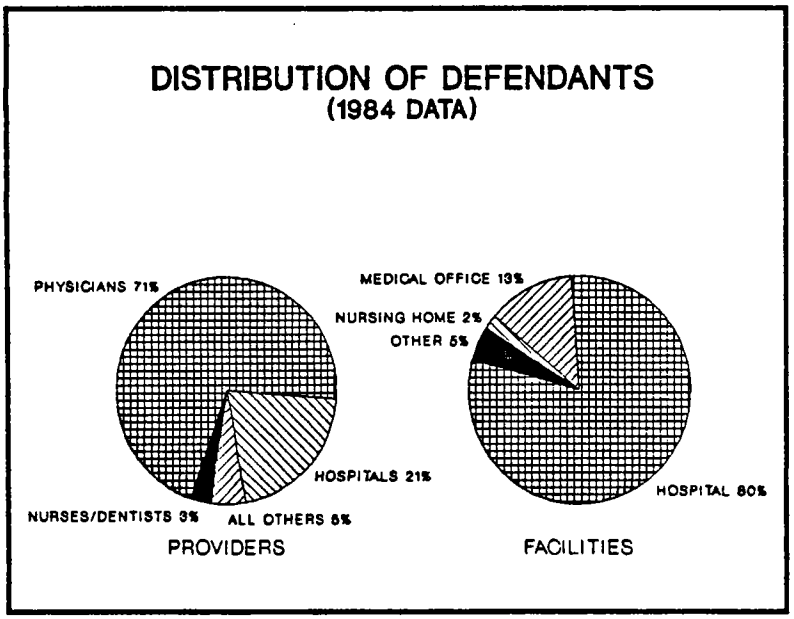
SOURCE: Medical Economics, April 18, 1988. Data are for 1985-1986.

The GAO closed claim study found that about one-quarter of all claims arise from improper diagnoses, another quarter from poor surgical outcomes and one-fifth from problems in treatment (see the pie chart at the top of page 8).



Most Malpractice Claims Are Filed against Physicians; Obstetricians and General Surgeons Are Most Frequently Sued

The following chart shows the distribution of malpractice claims by provider and type of medical facility:



Claims are not distributed proportionately across specialties. While 32.9 percent of all claims are against general and orthopedic surgeons, obstetricians and gynecologists, these specialists account for less than 15 percent of all physicians.

TABLE 2. NUMBER AND PERCENT OF CLAIMS FILED, BY SPECIALTY

	ALL PHYSICIANS		INVOLVED IN CLAIMS	
Specialty	Number(a)	Percent(b)	Number	Percent(c)
Obstetrics/Gynecology	25,234	5.2	8,927	12.4
General Surgery	31,308	6.4	8,733	12.1
Orthopedic Surgery	14,572	3.0	6,064	8.4
Internal Medicine	60,118	12.4	5,397	7.5
General Practice	29,399	6.1	4,555	6.3
Family Practice	31,195	6.4	4,505	6.3
Radiology	19,839	4.1	3,973	5.5
Emergency Medicine	7,811	1.6	3,325	4.6
Anesthesiology	16,845	3.5	3,073	4.3
Other	248,802	51.3	23,378	32.6
TOTAL	485,123	100.0	71,930	100.0

(a) Total number of physicians in specialty
(b) Percent which specialty constitutes of all physicians
(c) Shows percent of the 71,930 claims closed

Source: General Accounting Office, Medical Malpractice: Characteristics of Claims Closed in 1984, p. 54-55

Malpractice Claims Frequently Do Not Result In Payment

Less than half of all malpractice claims result in payment. The GAO study found that only 43 percent of 73,472 sampled claims closed with payment. This figure is remarkably close to the figure cited in the 1973 HEW report, which reviewed 16,000 closed claims and found 45 percent closed with payment. A study by the Rand Corporation of 6,000 claims filed between 1974 and 1976 showed that 52 percent of claims were settled with some payment. Claims may be dropped for a number of reasons, the most frequent being a determination by the claimant that the case is not strong enough to win or that the size and likelihood of an award does not justify the cost of proceeding with the claim.

As was true for frequency of claims filed, the percent of total claims resulting in payment and the payment amount varies by specialty. The GAO study collected data on the percent of physicians by specialty who had claims paid against them and the median and average amounts paid (table 3).

The GAO report also showed that payments for less than $50,000 were significantly overcompensated (e.g., paid more than the economic loss), while payments of $100,000 or more were less than the patients' actual economic losses.

TABLE 3. PERCENT OF CLAIMS PAID, BY AMOUNTS PAID AND SPECIALTY

SPECIALTY	PERCENT OF TOTAL CLAIMS	PERCENT OF CLAIMS PAID	MEDIAN PAYMENT	AVERAGE PAYMENT
Obstetrics/Gynecology	12.4	45.6	$75,000	$177,509
General Surgery	12.1	26.0	49,000	120,000
Orthopedic Surgery	8.4	33.9	25,000	80,159
Internal Medicine	7.5	21.3	10,000	42,757
General Practice	6.3	37.9	45,000	50,264
Family Practice	6.3	25.9	15,000	40,339
Emergency Medicine	4.6	24.5	7,000	22,640
Anesthesiology	4.3	41.4	3,000	42,680
Plastic Surgery	3.2	29.9	22,500	70,172
Pediatrics	3.0	33.2	195,000	198,644
Ophthalmology	2.8	33.1	10,000	55,593
Neurosurgery	2.6	23.8	10,000	65,226
Pathology	0.6	76.0	250,000	197,652
Other	25.9	29.3	(a)	(a)
Total/Average/Median	100.0	31.8(b)	25,000	85,179

a) Data not available
b) Percent of all claims filed that result in payment

SOURCE: General Accounting Office, Medical Malpractice: Characteristics of Claims Closed in 1984 (1987), p. 54-56

Medicare and Medicaid Patients Account for Only a Small Portion of Malpractice Cases

The GAO closed claims study identified the type of health insurance used by the sample patients who filed malpractice claims. Only about 10 percent of all claims were filed by Medicare beneficiaries and about 3.9 percent by Medicaid recipients. According to another study, younger patients file proportionally more claims, since the expected value of recovery decreases with age.

Poor Quality of Care Is Difficult to Document

Measuring the frequency of substandard medical care, rather than claims filed, has proved difficult largely because of a lack of agreement on acceptable standards for many medical procedures. One attempt to establish such standards is currently underway in a series of research projects funded by HHS to examine ways to foster high quality of care and reduce the volume and magnitude of claims.

The California Medical Association and California Hospital Association (CMA/CHA) commissioned one of the few comprehensive studies to obtain information about patient disabilities resulting from substandard medical care. A sample of 20,864 inpatient hospital medical records for patients discharged in 1974 from 23 representative California hospitals were reviewed for evidence of what the study called "potentially compensable events" (PCEs). These were defined as instances of "substandard medical care" where, in the opinion of the reviewers, the physician and the hospital were potentially liable for a malpractice award. The study found that 970 (4.65 percent) of all hospital inpatient stays resulted in PCEs. Of these 970 cases, about 80 percent resulted in temporary disabilities, 6.5 percent resulted in minor permanent disabilities, 3.8 percent resulted in major permanent injuries and 9.7 percent resulted in death.

In the judgment of the reviewers, only a fraction of 1 percent (0.79 percent or 164) of the 20,864 charts reviewed included evidence that would have supported a verdict in favor of the patient had a malpractice suit been filed. This represented about 17 percent of the 970 PCEs. By extrapolating to the entire statewide hospital population in 1974, the study projected 23,800 potential liability cases. Of these, only 2,600 would have involved substantial, permanent disabilities. Another 5,800 were projected to result in death, but this included 800 that the study team said "probably would have died within 1 year from unrelated, underlying diseases or conditions." The CMA data indicate that about 1 in 20 hospital inpatients suffers an injury but only 1 in 125 has a legal claim of malpractice.

TABLE 4. POTENTIALLY COMPENSABLE INJURY RATE IN CALIFORNIA HOSPITALS, 1974

	NUMBER	PERCENT
Charts Reviewed	20,864	100.0
Potential Compensable Injuries	970	4.65
Cases Involving Probable Liability	164	.79*

*This figure represents 17 percent of the 970 cases of potential compensable injuries or .79 percent of the total cases.

The OIG "National DRG Validation Study" on quality of patient care in hospitals yielded results similar to the CMA study. Whereas the CMA study found potential compensatory events comprised 4.65 percent of all California hospital stays,

the OIG found that 6.6 percent (464 patients out of 7,050 in a national sample) received poor quality of care "bordering on malpractice."

Poor Quality of Care Does Not Usually Lead to Malpractice Suits

The Rand Corporation conducted a follow-up to the CMA/CHA study using data for California hospitals from the same period, comparing the number of actual claims to the estimated number of injuries. This study concluded that, on average, only 1 malpractice claim was filed for every 10 potentially successful claims, and only 4 paid claims resulted from every 100 injuries. The rate of claims filed and paid was higher for permanent disabilities than for temporary ones. However, even among cases where negligent care resulted in major, permanent injuries--the type of cases most likely to result in malpractice claims--only about one claim seemed to result for every six injuries identified in the CMA/CHA study.

The OIG study did not try to determine whether the instances of poor quality of care were also "potentially compensable events" or to estimate how many, if filed, would have resulted in a finding of legal liability by the defendant. If the Rand and other studies are a guide, only a small portion of the 6.6 percent of substandard care cases found in the OIG study would result in a malpractice claim being filed. As Danzon pointed out, "the vast majority of injuries arising out of apparently negligent care do not result in a suit. This means there are plenty of potential cases to draw from when the public's propensity to sue increases or the legal climate becomes more favorable to plaintiffs."

Sanctions Are Not Resulting in Denial of Licenses

A recent study revealed that physicians excluded from Medicare and Medicaid continue to practice medicine. The Health Research Group tracked 62 doctors sanctioned by HHS between December 1985 and February 1988. State bodies have taken action against only 17 and have not revoked or suspended any licenses. According to the Federation of State Medical Boards, "State boards have been improving in recent months and have a good record in acting on at least 'egregious cases'." The American Medical Peer Review Association claims that follow-up is hindered because HHS furnishes only the names of excluded physicians without patient names or detailed information about the cases.

HHS Initiatives

- **The National Practitioner Data Bank (NPDB)**
  Until recently, tracking doctors who have performance problems has been very difficult. Even when their licenses were revoked and their hospital privileges were suspended, doctors could easily move their practices across State lines. In response to this problem, the Health Care Quality Improvement Act of 1986 mandated that the Secretary of Health and Human Services establish a national data bank. The NPDB will contain data on professional disciplinary actions, malpractice payments, adverse actions regarding clinical privileges and professional society membership revocations.

  The OIG is promulgating regulations that would levy civil money penalties against any individual or entity failing to report information on medical malpractice payments in accordance with the act. A final rule is scheduled for publication by spring 1989.

  The act requires each hospital to check with the NPDB every 2 years about its medical staff and practitioners who have clinical privileges. The hospital must also check when it hires new medical staff or grants an individual clinical privileges. The NPDB data will be available to other selected entities. The Public Health Service awarded the NPDB contract to UNISYS who will begin operations late in 1989.

- **Data Sharing among HCFA, Peer Review Organizations and State Licensing Boards**
  The recent OIG program inspection on peer review organization (PRO) quality review recommended that "HCFA encourage more sharing of information about physicians and providers with quality of care problems." Beginning with their next contract year, PROs are to share this information systematically with licensing boards. Once the data bank is operational, HCFA plans to have the PROs conduct a 100 percent review of one quarter of the services provided by physicians subject to disciplinary action. Following publication of final regulations allowing PROs to deny payment for substandard care, PROs will provide physician-specific data to State medical boards and national accreditation bodies when they find a pattern of substandard care.

- **Public Health Service Assistance to State Licensing Boards**
  The Public Health Service has established an Office of Quality Assurance within its Bureau of Health Professions. The Bureau has awarded a contract that would examine the appropriate structure, staffing and other requirements of State medical boards.
- **Research on Standards of Medical Practice and Malpractice**
  The Office of the Assistant Secretary for Planning and Evaluation is funding projects to research such issues as standards for medical practice, early detection of malpractice and the value of deterrence, risk management programs, the role of peer review organizations and patient outcomes. The Department's research efforts complement those of outside entities. For example, Stanford University is conducting research to see if malpractice risk ratings for anesthesiologists have improved as a result of professional practice standards mandated by physician-owned insurance carriers in California. This project is testing the hypothesis that the adoption of explicit professional practice standards reduces the risk of malpractice suits by improving medical outcomes.
- **Model State Tort Reform Legislation and Alternatives to Tort Litigation**
  The HHS Office of General Counsel, in consultation with the Department of Justice, has prepared model tort reform legislation for consideration by the States. The model legislation includes (a) limits on noneconomic damage awards; (b) elimination of the doctrine of joint and several liability where a "deep-pocket" defendant can be held responsible for paying up to the full cost of the plaintiff's award, even if his proportion of responsibility was smaller; (c) limitations on plaintiff's attorney fees; (d) periodic payments; and (d) a statute of limitations requiring that legal action begin within 2 years after a relationship between a medical event and an injury was discovered or should have been discovered. Model legislation has also been proposed authorizing the use of mandatory nonbinding arbitration as an alternative to tort litigation. The Department has engaged in outreach activities to assist States in drafting their own legislation.

CONCLUSIONS

Studies to date suggest that, when measured by increases in premium payments and in the frequency and severity of claims filed and paid, the medical malpractice problem continues to grow. The literature does not clearly explain the cause of these increases. No evidence exists to suggest that the frequency of substandard medical care is increasing, but no definitive study of this issue has been completed. Most observers have concluded that the increase in frequency and severity of claims is due to the expansion of the tort liability system. Courts have increased compensation to plaintiffs during the past two decades because of eased requirements for establishing joint and several liability and have moved increasingly to grant large awards for noneconomic damages. Some of the State efforts at tort reforms since the mid-1970s have slowed, but have not stopped, the increases.

The growth in malpractice suits, awards and premiums is usually cast as a problem in itself, independent of the underlying problem of substandard medical care. A valid legal claim, however, must rest on an actual medical injury. Yet, few documented cases of poor quality of care result in malpractice suits, and fewer than half the suits filed result in payment. The CMA/CHA study found in fact that most medical injuries result from treatment errors and unforseen mistakes.

Some observers believe the legal malpractice system is the best way to compensate victims of malpractice and deter negligent care. Others believe, as one commentator put it, that "malpractice law is too blunt an instrument and applied too uncertainly and broadly to address many or most quality problems. The scarcity of claims makes most providers believe that the system is random and hard ... to use for quality control." The American Medical Association is now taking the position that strengthened and publicized discipline of physicians should accompany malpractice reform. Information about the specialties and procedures most likely to lead to filing and payment of malpractice claims should help target activities by State licensing boards, PROs and other enforcement entities to improve quality of care.

Issues Needing Further Study

In its 1987 report, HHS promulgated an "agenda for action" on the malpractice problem dealing with health care, professional liability, alternatives to tort litigation and insurance. The health care issues cover State licensing boards, risk management, the peer review organizations and professional education. Other areas that may require further study include:

- Improving treatment: The HCFA and PHS are examining this as part of their effectiveness initiative.
- Quality assurance: This includes PRO and State licensing board activities.
- Information exchange: This primarily involves operation of the National Paractitioner Data Bank.
- Malpractice liability reform: This involves both tort reform and malpractice insurance reform.

ANNOTATED BIBLIOGRAPHY

1. U.S. General Accounting Office, Medical Malpractice, No Agreement on the Problems or Solutions, February 1986.

2. U.S. General Accounting Office, Medical Malpractice, Insurance Costs Increased Varied Among Physicians and Hospitals, September 1986.

3. U.S. General Accounting Office, Medical Malpractice, Six State Case Studies Show Claims and Insurance Costs Still Rise Despite Reforms, December 1986.

4. U.S. General Accounting Office, Medical Malpractice, Case Study on Arkansas, December 1986, and similar studies on California, Florida, Indiana, New York and North Carolina.

5. U.S. General Accounting Office, Medical Malpractice, Characteristics of Claims Closed in 1984, April 1987.

6. U.S. General Accounting Office, Medical Malpractice, A Framework for Action, May 1987.

This General Accounting Office series on malpractice contains the most comprehensive, current data on malpractice claims, insurance premium rates and analysis of State reform efforts. The reports include an overview of the issues, a study of malpractice costs, a summary of State malpractice insurance reform efforts, an analysis of claims closed in 1984 and a summary of conclusions, recommendations and suggestions.

7. Duke University School of Law, "Medical Malpractice: Can the Private Sector Find Relief?" in 49 Law and Contemporary Problems, 2, Bovbjerg and Havigurst editors, Spring 1986. Contains an excellent summary of legal issues and current malpractice research.

The following publications (8-14) by the Rand Corporation's Institute of Civil Justice contain empirical data on the incidence of malpractice claims and the impact of State reform efforts over the past decade:

8. Danzon, P.M. and L.A. Lillard, The Resolution of Malpractice Claims: Modeling the Bargaining Process, 1982.

9. Danzon, P.M. and L.A. Lillard, The Resolution of Malpractice Claims: Research Results and Policy Implications, 1982.

10. Danzon,P.M., The Frequency and Severity of Malpractice Claims, 1982.

11. Danzon, P.M., New Evidence on the Frequency and Severity of Medical Malpractice, 1986.

12. Danzon, P.M., The Effects of Tort Reforms on the Frequency and Severity of Medical Malpractice Claims: A Summary of Research Results, 1986.

13. Kakilak, J.S. and Pace, N. M., Costs and Compensation Paid in Tort Litigation, 1986.

14. Rolph, John E., Some Approaches to Deterring Medical Malpractice (work in progress).

15. Department of Health and Human Services, Report of the Task Force on Medical Liability and Malpractice, August 1987. Contains a thorough discussion of the malpractice issues and an "agenda for action" for the Department.

16. "Special Issue on Malpractice," Medical Economics, April 18, 1988. Contains a thorough discussion of the malpractice issues and an "agenda for action" for the Department.

17. "Medical Insurance Feasibility Study," Western Journal of Medicine, 128:360-365, April 1978. Contains a description of the methodology and findings of the most comprehensive study completed to date of disabilities of hospital patients resulting from health care management.

18. Meyers, Allan R., "Lumping It: The Hidden Denominator of the Medical Malpractice Crisis," American Journal of Public Health, December 1987. Describes a pilot study of public perceptions of hospital caused illness and injury.

19. Robert Wood Johnson Foundation, "First Round of Grants Announced Under Medical Malpractice Program," June 1988. A description of 14 projects funded by the Foundation to advance knowledge about what constitutes malpractice, what causes it and how it can be prevented.