A CONCEPTUALIZATION OF A NO-FAULT COMPENSATION SYSTEM FOR MEDICAL INJURIES

RICK J. CARLSON

Visiting Fellow, Center for Study of Democratic Institutions

THE FRAMEWORK

Estimates of the impact of personal health care services on the health levels of definite populations range widely. Whatever the figure derived, it is often surprising to discover what little effect such services have on the conditions of health. Rene Dubos offers no numerical estimate but phrases the point in this way:

> But while modern science can boast of so many startling achievements in the health fields, its role has not been so unique and its effectiveness not so complete as is commonly claimed. In reality . . . the monstrous spector of infection had become but an enfeebled shadow of its former self by the time serums, vaccines, and drugs became available to combate microbes. Indeed, many of the most terrifying microbial diseases — leprosy, plague, typhus, and the sweating sickness, for example — had all but disappeared from Europe long before the advent of the germ theory. . . . [C]learly, modern medical science has helped to clean up the mess created by urban and industrial civilization. However, by the time laboratory medicine came effectively into the picture the job had been carried far toward completion by the humanitarians and social reformers of the nineteenth century. Their romantic doctrine that nature is holy and healthful was scientifically naive but proved highly effective in dealing with the most important health problems of their age. When the tide is receding from the beach it is easy to have the illusion that one can empty the ocean by removing water with a pail. The tide of infectious and nutritional diseases was rapidly receding when the laboratory scientist moved into action at the end of the past century (Dubos, 1959: 107).

The fundamental distinction drawn by Dubos between health care services and socio-environmental factors is very significant, yet it seldom influences either the policy or practice of health care. Despite this lack of focus by policy-makers upon socio-environmental factors, a high correlation between such factors and health status is evident; to assume that well-being is the result of only those services which are personally provided by practitioners is patently foolish. Perhaps one of the main reasons for lack of attention to the impact of socio-environmental factors upon health status is the growing pressure (and obvious need) to improve the system for delivery of personal health care services almost irrespective of its arguable impact on health status.

There is one rather limited arena — medical injury compensation afforded through malpractice litigation — where the "impact" of personal health care services is assessed and even judged with some finality. An injury sustained by a patient on his or her way through the health care system can be clearly identified and even occasionally traced to its cause through the malpractice reparations system. What is not so clear and what has not been comprehensively assessed, however, is what impact malpractice has on the system for provision of health services. In short, what are the interrelationships between the system to provide care and a system to compensate those who sustain injuries passing through it?

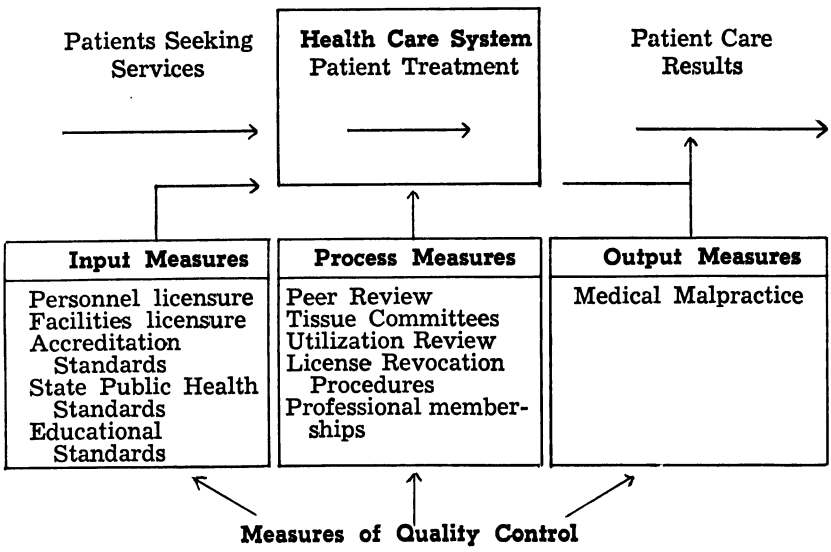
It is this basic question and some related issues which are addressed in this paper.

The Conceptual Framework

Despite documented increases in medical malpractice litigation (and concomitant increases in costs), there is little definitive evidence that the tort liability system for medical injuries accomplishes what should be one of its basic objectives: to provide a set of measures to assure the quality of health care.

Measures of control over the quality of health care can be placed conceptually into three basic categories: input measures, internally applied or process measures, and output measures (of two types: outcome measures for health care procedures and health level measures for population cohorts). Schematically some of these measures are as follows:

FIGURE 1



As reflected in the schematic, medical malpractice liability is the only significant legally enforceable output measure of the quality of care. Traditionally, regulation of the quality of health care has been premised upon input measures which erect barriers to entry of resources, *e.g.*, personnel licensure, and process measures which mediate the application of formulae for the optimal mix of resources, *e.g.*, accreditation standards for hospitals. There has been virtually no reliance upon outcome measures. Such measures, however, are theoretically superior since it is clearly preferable to measure (and to focus regulation on the basis of) the results of health care services rather than on the ingredients that are used to get the results. It is therefore extremely important to determine whether malpractice, as the only regulatory output measure, is effective as a measure of quality as well as a means of redress to patients who sustain medical injuries.

The notion of an "effective output measure of quality" needs clarification. What is being addressed is:

1. to what degree is there a rational match between claims brought (and claims compensated), *and* a set of medically derived measures of unexpected and/or poor results; and
2. to what extent does determination of a relationship between unexpected and/or poor results and provider(s) of care (with or without compensation for the results) introduce feedback to the health care system and occasion corrective action.

Given the above, the analysis to follow argues around two principal hypotheses:

1. that the existing system of medical malpractice legal doctrines and procedures is *not* an effective output measure of quality control for health care services, and
2. that a medical-injury compensation system is not only substitutable for the existing system, but would serve, as well, as a more effective output measure of quality control.

There are three final points before proceeding. First, it is not my intent to prove these hypotheses. They are included principally to integrate much of what follows. Second, discussion of the utility of a no-fault system as a system of reparations is relevant, of course, but will not be treated in this paper. Thus, eliminated from consideration is analysis of the

merits of no-fault compensation *as* a means of compensating injured persons. And, finally, it is acknowledged that definitive treatment of all the issues and concepts implicit in the analysis to follow is difficult without complete data. I will include what has been collected. There is little doubt, however, that more data is needed and systematic collation of that data equally necessary. The DHEW commission on malpractice has recently completed its work and has collected some data, but it was reported too late to be of use in the preparation of this paper. A research project I have been involved in has, however, collected some data and I will recite it as appropriate.

COMPENSATION FOR MEDICAL INJURIES: THE CURRENT REPARATIONS SYSTEM

Before reviewing the current tort-based system of compensation borrowing from the general critique of tort reparations for automobile injuries there are two preliminary points. First, a tort or fault-based system should be thought of as a compensation system depending on a fault mechanism for determining who will and who will not receive compensation as opposed to a different mechanism such as "means test eligibility." Second, such a system affords compensation when three conditions are met: (1) a person is not liable for harm caused by him unless it is demonstrated that he owed a duty not to engage in unreasonable conduct proximately linked with the resulting harm; (2) the complainant must not have contributed to his own harm by having acted unreasonably in relation to his own safety; and (3) if conditions (1) and (2) hold, damages are computed to afford compensation to the party having sustained the harm.

With this understanding, discussion of the current system can be encapsulated in seven major points:

1. **Barriers to Recovery.** As a compensation system — a system to compensate persons having sustained injuries while undergoing medical care — the system is random in its rewards. Some obtain rich recoveries, but undoubtedly many patients sustain injuries which go altogether uncompensated. This is arguably true for those who litigate and lose approximately 80 percent of litigated malpractice suits; for those who initiate litigation or file claims with insurers and who ultimately withdraw their claims or allow them to lapse; and for those who never initiate claims either through ignorance of injury, or if aware of injury, simply do not pursue their claims. This "surmise," as others

in this paper, rests on analogues drawn from the exhaustive study of automobile reparations under tort recently compiled by the Department of Transportation. In short, it is assumed generally that the disjunctures and inequities prevalent in that system of tort-based compensation obtain as well in the tort-based system for compensation of medical injuries.[1]

I believe it is understandably difficult to document these points. As noted earlier, data on the types of claims, payout levels as against types of claims and so on is either rare or rarely available. Nevertheless, given evidence of the great variability of care adduced in the next part, it is plausible to argue that those few cases which ripen into disputes represent but a fraction of potential claims. (The fraction, of course, may be relatively large.) Moreover, a number of claims for indisputable medical injury may not be commenced simply because evidence is difficult to amass. But more critically the requisite test of negligence ineluctably screens out claims for injuries which are simply unexpected given the best of care.

2. **Delay in Compensation.** Payment of compensation is greatly delayed by our creaking adjudication system. Although malpractice is but a minor contributor to the backlog of cases stacked up in most metropolitan jurisdictions, such cases, along with the others, must wait in turn for hearing — not unusually five to six years after the claim for relief has arisen in some jurisdictions.

Such delays can severely penalize both major parties to the litigation — the plaintiff and very often the insured physician (the physician often suffers anxiety as to the outcome and consequent reflection on his professional stature); but may benefit others — plaintiff's counsel and occasionally defense counsel (seeking a withering of plaintiff's will to pursue his claim), and most definitely the insurer who can hang on to those revenue-generating reserves that much longer. Further, delays can, and undeniably do, force premature settlement by importunate plaintiffs and may even deter initiation of claims by some preferring to avoid the protracted struggle. And, for those who persist, their expectations for amount of recovery undoubtedly increase over time — an aggravation multiplier — lessening the possibility of eventual settlement.

The debilitating effect on the physician may be sig-

nificant. Contrary to defendants in civil tort litigation, generally, the physician-defendant believes he is more at risk given the inevitable reflection on his professional credentials win, lose, or draw. Ironically, despite the apparent trauma of the physician there is evidence that the practices of those involved in malpractice litigation are not adversely affected, nor is their professional reputation necessarily tarnished. Not only is his emotional condition often unstable — a matter of doubtful concern — his mode of practice during the pendency of litigation may be adversely affected; he may simply become a less effective healer. The latter phenomenon is a matter of genuine concern, especially in view of the absence of effective regulatory mechanisms controlling provider malfeasance and misfeasance.

3. **Constraints to Innovation.** Providers are increasingly disturbed about the current system. But the complaints of the medical professionals are based on more than the increased costs. A good summary statement of providers' grievances is found in the Florida Law Review (1966):

> Physicians resent the judging of their medical conduct by a panel of laymen who are inherently sympathetic towards plaintiffs of their own social and economic standing and unappreciative of the uncertainty and risk involved in medical practice. They distrust the adversary system as a means of arriving at objective fact. Doctors generally hold in disdain the practices of attorneys in manipulating facts; attempting to thwart the admission of evidence; invoking the sympathy, prejudice and emotions of juries. They look with particular contempt at the emerging doctrine of *res ipsa loquitor*, which is vigorously criticized as an artificial means of proof subject to misapplication and abuse. In addition to the financial effects of adverse judgments and increased insurance rates, the medical profession points to the damage to doctors' reputations and the influence upon medical practices, as unjustified and dangerous consequences of the current trends.

The threat of litigation may often induce the practitioner to compromise his or her professional judgment in rendering care. With increased exposure to litigation the entire system — with exceptions, of course, for the maverick, the fearless, and the judgment-proof — assumes a more conservative case. Even scientifically acceptable innovation is suspect. Many physicians, for example, refuse to apply promising new techniques in favor of the tried and proved procedures.

Conservatism may affect more than just the way in which individual physicians do their jobs. More damaging

may be the impact of fear of malpractice on change in the health care system. Suppose, for example, a group of doctors in a given geographical area wish to raise the general health of the community they serve but there are not enough physicians in the area to serve the population adequately. What can they do? One thing, of course, would be to require all available physicians to work more hours per day, or, alternatively, to find more physicians. Neither one of these alternatives is feasible, however, given relatively arduous physician schedules, and further given medical manpower shortages. One solution proposed is to make greater use of paramedical personnel; that is, for cut toes, angle-worm bites, vaccinations, and the like, the patient could conceivably be treated by a paramedical staff member. The spectre which is raised over this innovation, as with others, is malpractice law, real or imagined. Current law could subject the physician or group of physicians to litigation if, in fact, a paramedical employee treated one patient with bad results (in some instances simply because the paramedical was utilized irresponsive of causation). Thus, an attempt to raise the general level of health in the community by spreading the physicians around to treat the more serious problems, and thereby reach those within the population group who cannot afford the full price or any price for medical services, could expose the group of physicians to destructive litigation.

In this way physicians are constrained in their attempts to improve professional services. The types of change needed in the current fragmented, inefficient health care system require a certain amount of boldness from a group of professionals not known for that quality. Fear of malpractice litigation further rigidifies prevailing patterns. If a few physicians decline to undertake certain procedures for fear of liability, the impact is on individual patients; when many practitioners share this view the sentiment for change in the organization of health is greatly stifled.

4. **Costs and the Incidence of Cost.** The current system is enormously expensive in many of the wrong places. The recent Ribicoff subcommittee hearings reflect some of these costs (Subcommittee on Executive Reorganization, 1969): higher settlements and verdicts in recent years; escalating insurance premiums; and the incalculable cost of the practice of defensive medicine; and so on. It is not argued here

that in any calculation of Gross National Adjudicative Cost (GNAC) that malpractice litigation represents a substantial drain or misallocation of resources. Only a small number of litigants are involved and the aggregate fiscal impact is minimal. The costs directly attributable to medical malpractice are estimated at $100 million annually. (Billings, 1971). In short, the problem is there but is only a microcosmic reflection of the disjunctures in tort-based compensation.

There are, however, some pronounced local impacts of the costs of the current system. As noted, direct costs affect but a small segment of the economy — practicing physicians who number about 300,000, and hospitals, which number about 7,000. But, when malpractice premiums divert 10 to 20 percent of some physicians' gross revenues, and nearly 5 percent of the revenue of all physicians in the country, there is an inevitable market distortion. (These figures, along with some others, are estimates and bear all the infirmities of estimates.) Second, provider behavior is affected — it is made more conservative and consequently more expensive and thus inflationary. This cost bears directly upon the consumers of health care services who will probably absorb increased costs when passed onto them by the providers of services. To the government, federal and state which together through Medicare and Medicaid pay roughly 40 percent of the cost, the implications are not significant.

Finally, there is inequitable distribution of the costs. Plantiffs receive approximately 15 percent of the premium dollar for malpractice coverage while the insurer and defense counsel consume 55 percent in overhead and claims processing expenses. The balance, or 30 percent, is the take of the plaintiff's lawyer for his labor. (Subcommittee on Executive Reorganization, 1969: fn. 10). There are other estimates on these points which are not dissimilar.

5. **Inequities in Recovery.** The current system is inequitable in terms of economic return to the claimant. Some recoveries are truly stupendous; in recent years some have exceeded $1 million. Many claims, however, as observed earlier, may never be initiated for a number of reasons but very often associated with patient ignorance and the formidable procedural barriers to litigation.

The phenomenon of payment of "nuisance" suits to litigants alleging injuries arising out of automoble ac-

cidents may not necessarily be as prevalent in the context of claims for medical injury. The available information appears to be conflicting. Although some experts feel that the nuisance suits are no problem, others feel that they definitely contribute to the high costs of the system in spite of the fact that their effect may have been decreasing in recent years.

Some nuisance claims are undoubtedly paid with expedition, but the general posture of both insurers and providers is recalcitrant. Meritorious claims are often grudgingly paid; usually only after litigation or on the proverbial doorstep. In fact, occasionally commencement of litigation is essential merely to afford plaintiff's counsel examination of pertinent medical and hospital records of his client. Additionally, the atmosphere of distrust and intense gamesmenship surrounding malpractice litigation tends to select favorably those patients who are the most aggresive. But it is not necessarily true that all persons incurring medical injuries are sufficiently aggressive to get into the litigation stream. Patients not possessing an unabating drive towards recompense for injuries may never even enter the claims system.

Insofar as payment of claims actually made, there is no reason to believe that the experience recorded with respect to automobile injury claims is not generally applicable to other insurable torts. In short, reasonably rapid payment of small claims (although as noted earlier this may not be as true for malpractice claims); great resistance to payment of substantial claims, with stiffer resistance the larger the amount of the claim; lower ultimate compensation for the most severely injured in terms of net economic recovery and frequent overpayment of small claims, when paid, in similar terms.

Randomness in payment patterns, and the undeniably large number of injuries for which compensation is not sought, do not bear rational relationships to the underlying premise of a fault-based system — payment by those at fault to those so harmed in an amount sufficient to make them "whole." A few sustaining medical injuries end up more than whole; some obtain truncated recoveries; and many are starved out of the system with no recovery at all.

6. **Venality.** The slight but attractive possibility of a "grand"

recovery no doubt leads many of the parties engaged in the system into venality. The same conditions undoubtedly prevail respecting the claims system for malpractice that generally prevail for personal injury claims. Inducements to exaggeration, mendacity, malingering, and to compromise of professional judgment and credibility abound in the current system. Another major and somewhat related factor is the influence of tort litigation on the rehabilitation of those sustaining medical injuries. The current adversarial claims processing system deters pursuit of prompt and effective rehabilitation simply because the undertaking of efficacious rehabilitative procedures can weigh against a claimant seeking to compound his case to drive the damages up. This factor has been quantified in the Department of Transportation studies of automobile accident litigation (Bombaugh, 1971: 222-225).

7. **Effects on Practice.** A seventh and final factor has been alluded to but needs special emphasis. The threat of malpractice litigation can and does influence the practice and behavior of the practitioner and the rate of innovation in the health care system. At present, however, proof of this assertion must depend more on theory than on data. Little definitive research has been done. Nonetheless there is some evidence. Eli Bernzweig of the Department of Health, Education, and Welfare, Center for Malpractice Claims Prevention, informed the Ribicoff subcommittee at its hearings in late 1969 that:

> It has become commonplace for physicians to order complete x-ray studies of an injured limb even without the slightest indication of a fracture. Needless to say, these x-rays can add $20 to $30 to the patient's bill even though they may be unwarranted in 99 out of 100 cases . . . . In addition to x-rays, physicians now frequently recommend medical consultations even when there are no positive medical grounds for such specialized services . . . . In still other cases, physicians are ordering additional laboratory tests, additional hospitalization and additional nursing care, both to minimize the chances of being sued for malpractice and to guarantee the successful defense of any suit which might be instituted. (Subcommittee on Executive Reorganization, 1969: 22, fn. 10).[2]

Despite data of this sort, a point of great controversy continues to be the extent to which the fear of exposure to malpractice claims by physicians leads to distortion of the physician's judgment in ministering to patient needs. The debate in other words is not waged over "whether" distortion arises, but "to what extent" it occurs. Resolution of the argument may

never be completely made — physicians are understandably reluctant to depict unnecessary, defensive, and wasteful practices, and patients usually lack the sophistication to perceive such behavior. However, given the consequences of such practices in terms of the cost of medical care, even the limited data is provocative. No definitive studies have been made of actual cost increases which may be attributable to the threat of malpractice. Such a study would be extremely complex. Michael Halberstam, a physician, has recently written perceptively on the subject. While Dr. Halberstam cites no data to support his assertion that the threat of malpractice liability affects physician behavior, his article is a perspicacious account of such phenomena (Halberstam, 1971).

More specifically, how does malpractice law and theory interpenetrate matters of medical practice? An illustration can be drawn from the impact of malpractice experience on utilization of health manpower.

Malpractice law mirrors licensure law to the extent violations of such statutes are admissible as evidence of negligence. The doctrine in malpractice which is most conceptually related to health professional licensure law is the "standard of care" doctrine. The notion underlying this doctrine is that in order to impart liability to a practitioner for the negligent performance of an act, it must be known against what standards of performance the practitioner is to be held. The doctrine is, of course, a facet of general negligence theory which requires a duty with recognizable standards to be identified and imposed before a finding of negligence can be made.

If a person is injured in the course of medical treatment and an unlicensed aide or assistant was involved and if such aide or assistant, when allegedly committing an act of negligence, was performing an act which only a person possessing a certain license was allowed to perform, the law of some states holds that the bare fact of violation of the licensure statute may create a presumption of negligence.[3] Usually practicing without a license or without a certain type of license is considered too remote in the chain of causation to be evidence of negligence, though it may be held to be a crime. The performance of extra-statutory acts by a licensed auxiliary may also lead to a "presumption" of negligence (*Monohan v. Devinny,* 1927). The presumption, although not conclusive, makes it more likely that a finding of negligence on the part of the assistant will result because it gives the plaintiff an advantage

which must be overcome by the defendant. In such a case the presumption of negligence arises because the utilization of the health practitioner in the particular instance may not have conformed to the prevailing standard of care, either as codified by statute or as engendered by the admixture of law and custom. The unlicensed person may conceivably have been more capable of performing the act than a licensed person. Such a fact, however, would not prevent the presumption of negligence from arising. The result is that providers (physicians and hospitals) may be (1) inhibited from employing and utilizing persons, otherwise capable and trained for the performance of functions for which they are not licensed, and (2) from optimally utilizing licensed personnel for the performance of health care to be within their practical competence.

Hospitals and other health care institutions are also increasingly caught in the malpractice net. Beginning with the *Darling* case in 1965 and subsequent cases following *Darling*, health care institutions have been advised by the courts that they bear an affirmative duty to adopt procedures to insure the safety of patients within their walls (*Darling v. Charleston Memorial Hospital,* 1965). No longer can such institutions assume that the physician will be the only target in a malpractice suit.

THE HEALTH CARE DELIVERY SYSTEM AND THE CONDITIONS FOR MEDICAL INJURY — WHY DO MEDICAL INJURIES OCCUR?

Providers of health care are not perfectable. Nor is their product absolutely guaranteed. But, even given generally high levels of quality care, there are conditions and circumstances obtaining within the industry which create the occasion for medical injury and compound the irreducible element of human error. Some of these conditions discussed in this section cannot be fully traced; many are not even necessarily causes in the legal sense. But taken together they may explain, in part, why the "occasion" for medical injury is increasing. These "conditions" are discussed not only because they illuminate why some medical injuries may occur, but also because their explication furnishes a backdrop for consideration of the impact of a no-fault compensation system on the delivery system.

The Archaic System for Delivery of Care

There are some problems associated with the organization of the delivery system for health care derived in part from its anachronistic character which penetrate considerations of com-

pensation. The problems are discussed under the following headings representing conceptual characteristics of the health care delivery system: the organization and structure of the industry; its capacity to serve; financing mechanisms; and the distribution of resources within the industry.

The organization and structure of the industry. The health care industry has been called a "cottage industry" (Devey, 1967; Devy, 1970). Care is still provided principally by individual practitioners and institutions which are both diverse and unintegrated with practitioners. Most physicians continue to engage in solo practice. As of 1969, 10.2 percent of the practicing physicians in the United States practiced with groups. Few physicians have entered into formal arrangements with hospitals; they are usually treated as independent contractors. Occasionally, of course, practitioners and institutions will clump together to integrate services but there has been no powerful centripetal force to facilitate fusion of resources. One result is that the industry has remained both labor intensive and grossly fragmented despite rapid technological advances in other industries. Fragmentation is an over-used word and as used here a conclusionary statement. I use the term to mean two things: first, that the health care is provided by many separate individuals, groups, and institutions with few large organizations and little integration of practitioners and institutions. Second, health manpower is classified by rigid licensure laws resulting in the lack of a rational pattern of manpower availability and utilization. To oversimplify, before the industrial revolution, commodities and many services were generally in sufficient supply as long as suppliers were present to deliver those goods and services. Change was introduced through market exchange mechanisms which both stimulated and followed intensive industrialization, in most instances resulting in a complex network to manage the supply flowing from producers to consumers.

The product or services did not necessarily suffer from the increased complexity, but may have cost more. This "train" of industrialization has swept past the health care system — it simply hasn't been reorganized to achieve efficiencies in providing care. It is still controlled by guilds and shamans.

Reference to the health care system in terms of industrialization are largely metaphorical. Naturally technological development has taken place in medical care. Hospitals have employed many new medical devices. In numerous ways the

science of medical care has become very sophisticated. Consequently, references to industrialization, guilds, etc. refer rather to the structure and organization of the system and more specifically to patterns of manpower utilization.

I must also make clear my intent in discussing the "structure" of the industry in the context of a discussion of quality. I do not argue that a less "advanced" organizational arrangement — solo practice for example — is necessarily a condition compromising quality. There is no evidence to support this. But the archaic structure of the industry impedes amelioration of other conditions discussed in this section which might improve quality. And, despite the lack of impeccable evidence, there is logic in the assertion that a higher level of quality is likely to be available from a multi-specialty provider with the incentives to utilize sophisticated technology and provide preventive care services than from a solo provider.

Manpower shortages have been variously estimated. Some of the more dependable data reveal that there has been a steady decline in physicians per 100,000 of population. There will also be a projected shortage of 100,000 nurses by 1975.

At present millions are unemployed or underemployed in the United States. Unemployment rates hover around 5 to 6 percent. Reliable statistics are not available to demonstrate the degree of underemployment but the phenomena is also presumed to be extensive. Relaxation of entry barriers would tap this vast source of manpower. Despite encroachments on established traditions made by group practice and the large institutional health complex, the progress is creepingly slow. Medical corpsmen furnish an example of potential source for paraprofessional supply. Each year approximately 30,000 corpsmen are discharged from the armed services. Many of these corpsmen have had extensive health care services experience, frequently in direct provision of care. Some new training programs have recently been established to tap this source of supply. Two such programs are the Medex program at the University of Washington and the Physicians' Assistant program at Duke University. For discussion of sources for paraprofessionals, see Fein, 1967 and Fein, 1969.

The question of the adequacy of existing facilities depends generally on the nature of the organization of the health care system. If health care is financed by fees paid for services, hospital utilization tends to be as much a function of that financing mechanism as of the exercise of sound medical judgment. Given

this arrangement, a determination that facilities are more than sufficient is highly questionable. On the other hand, if health care is financed by prepayment where the providers bear the costs of institutionalization, unnecessary utilization is unlikely, and the sufficiency of facilities can be determined more by actual utilization. Under this latter measure too many institutional spaces are available, assuming extrapolation from the data available on prepaid groups which do bear the costs of institutionalization once having entered into a contract to provide services in exchange for consumer prepayment. The entire question of shortages is, however, somewhat paradoxical (Glazer, 1970).

Capacity of the industry. The health care industry is marked by a shortage of licensed practitioners and an overall excess of facilities. To the extent this is true (and there is some reason to rethink the issue), theoretically the quality of services is lessened in the interest of serving more people given high levels of demand. Manpower shortages, however, may be overstressed as a systemic problem because of the severe maldistribution of resources.

Shortages are also affected by health manpower licensure laws (which are in turn reinforced by malpractice law). To be employed, practitioners must fit into licensure categories which vary from state to state but are uniformly rigid in their application. Shortages of supply are exacerbated by these licensure constraints. Moreover, legal boundaries around manpower categories have led ineluctably to suboptimal utilization by precluding "matching" of skills with tasks to be performed. And entry barriers which have been erected to new practitioners restrict the supply of new manpower. State-to-state variation in the law also restrains intra-state mobility which possibly would alleviate some shortages. Despite evidence of shortages and maldistribution, many providers continue to claim that all citizens have access to care. This is a spurious claim, however, in light of the grave maldistribution of services and the difficulties faced by many, and not just those who can't afford to purchase care, in finding a physician who will help.

The archaic structure of the industry has led some to suggest that the alleged manpower shortages are chimerical. It is argued that if the industry was characterized by large health care organizations with the freedom to employ and utilize personnel subject only to responsibility for the "outcomes" of health care services, and if such organizations exerted market

pressures upon specialty training institutions and programs to introduce alignment between supply of specialists and demand, shortages might disappear. This analysis is profound and largely supportable but is dependent upon the operation of one crucial factor — health care providers are not responsive to market pressures exerted by consumers because demand is simply not exerted by consumers but largely determined by physicians (and hospitals and other practitioners to a lesser extent). Of course, to say that physicians determine demand is not to say that physicians can set *any* price for their services. Physicians have great latitude in setting price levels but constraints exist. If prices approach the prohibitive, patients will defer, if not neglect, health care needs. Furthermore, the Social Security Administration is constantly tinkering with reimbursement formulae under Medicare and Medicaid to control price escalation. Health care providers to a degree can dictate health care needs to a complaisant public. This is a critical point to make (not only when considering the implications for regulation of the quality of care) but difficult to comprehend despite its apparent simplicity. Providers of health care services control the spigot. It is the physician that decides what and how much is needed, when it stops hurting, and how much it costs to make it stop. This condition should not be alarming if the incentives of the providers were generally aligned with those of the consumer. The shape of such incentives is greatly determined by the financing mechanisms used for health care services.

Financing mechanisms. How and how much you pay for something influences the structure and capacity of the industry you buy it from. How health care has been bought and how much has been bought offers ample evidence of the proposition. A fee-for-service system entails payment for health services, not maintenance of health. Thus, services, the need for which is largely determined by the providers of those services, are continuously bought by providers. This inevitably leads to increases in cost. You get what you pay for and in health care you pay for services, unit by unit by unit.

Federal and state governments, principally through the medium of Medicare and Medicaid, now purchase approximately 40 percent of the health care annually bought in the United States (Department of Health, Education, and Welfare, 1969). Under Medicare and Medicaid the fee-for-service system was not only preserved but buttressed — health care providers are

allowed to charge the fees that they collectively deem to be reasonable. Since providers have no incentive to reduce costs, they have steeply escalated in recent years. In the past decade consumer medical expenditures have more than doubled. From 1965 to 1968 medical care prices increased at an annual rate of 5.8 percent compared with a 3.3 percent increase for all consumer items (Department of Health, Education, and Welfare, 1969).

There is, of course, an alternative financing method — prepayment. Prepayment, as distinguished from fee-for-service payments, such as those facilitated by "health maintenance organization option" under Medicare, alters the incentives to providers. A health maintenance organization would not be paid for a unit of service, but rather would be paid a lump sum per patient in advance. This "prepayment" covers the costs of all necessary health services including hospitalization. See Sec. 239 (a) of the 1971 Amendments to the Social Security Act including "health maintenance organization option" under Medicare.[4]

The implications of the modes of financing for a compensation system for medical injuries are twofold. First, to the extent costs rapidly increase, the federal government tends to intervene in the system more readily to control costs. When this is done, logically as a next step, the government seeks to ensure the quality of the product it is buying. It must therefore consider the merits of the existing malpractice system. Second, the mode of payment — fee-for-service or prepayment — can influence the quality of care provided. In the fee-for-service industry providers tend to offer too many specialized services, over-utilize resources, and concentrate those resources in geographic areas which offer sufficient patient bases for exotic and specialized services. Under prepayment, conversely, providers may tend to under-utilize and under-serve. Any system for compensation for medical injuries should reflect these phenomena.

Distribution of health care resources. Health care resources are severely maldistributed along two dimensions — rich/poor and urban/rural. For example, only 12 percent of the physician population and 18 percent of the nurses practice in rural areas where 30 percent of the population lives. Specialists are especially scarce in rural areas. Only 8 percent of all pediatricians and 4 percent of the psychiatrists practice outside of urban areas. Recognition must be given to the fact that in a system marked by shortages, the supply will be least where choice of

residential and practice sites by practitioners is least — rural areas and low-income pockets in large urban areas suffer the most from distributive patterns.

Maldistribution has two pronounced but very different impacts on the quality of care. First, care which is given in areas which are under-served tends to be very episodic and is often rendered under conditions of expediency. This is not because practitioners serving such areas are necessarily less competent but rather because the demands and pressures upon such physicians are so great that thorough care is seldom possible. Ironically, a second impact stems from conditions of over-supply. When physicians are in generous over-supply, their natural inclination is to stimulate demand for their services. Occasionally, then, services are rendered which arguably are not necessary. This phenomenon compromises quality in two ways: first, the "opportunity" for errors of commission (as opposed to errors of omission) increase, and second, overzealous care can vitiate the natural recuperative powers of the patient. This second point is virtually impossible to document. And it should be made clear that the point does not assume malice on the part of the practitioner; rather it only assumes the predictable behavior of the economic actor. Even given the baldness of the assertion, it can be best proved (and probably only proved) through conversations with physicians in practice who can usually account anecdotally for X number of tonsils and Y number of appendices that were removed but upon subsequent examination not found to be pathological.

The Variable Quality of Care

There are probably many actionable injuries sustained by patients which escape detection because of lack of knowledge on the part of the consumer. Medicine, after all, is arcane. And, practitioners seldom remedy the imbalance in knowledge by apprising patients of details concerning treatment.

Although research on the fallibility of the health care system is conducted, few of the findings have been broadly disseminated. A recent study by the Center for Study of Responsive Law recites some of this research (McCleary, *et al.*, 1970). The research included in the study lends credibility to the assertion that many injuries occur which are not processed in any way by the current system. The data, with particular emphasis on hospital-based care, reveals great variability in the quality of health care services. Some of this data is summarized below. (I have taken the liberty of selectively para-

phrasing the material. I am not an M.D. and thought it wise not to hazard a rewrite or distillation for fear of hopelessly garbling some terms and phrases of "art."):

> Dr. J. F. Sparling compared the record of the university and community hospital staffs of Baltimore regarding appendectomies done presumably for a diseased appendix (Sparling, 1962). He noted, illustratively, that among 555 Blue Cross subscribers hospitalized for appendectomies, subsequent pathology examination revealed that 65 percent of the appendices removed in the university hospitals were definitely diseased, contrasted with only 45 percent in the community hospitals.
>
> Dr. Charles E. Lewis, of the Harvard Center for Community Health and Medical Care, studied the records for one year of the Kansas Blue Cross Association (only two of the hospitals in that state do not participate) (Lewis, 1969). He tabulated the number of elective operations for removal of tonsils, hemorrhoids and varicose veins, plus hernia repair, in all the hospitals in each of the state's 11 regions. Variations for the average rate of these four elective surgical procedures ranged from a low of 75 per 10,000 persons in Region 3 to a high of 240 operations per 10,000 in Region 7. Striking variations were also seen between regions within each elective operation category. The high and low region incidences (rounded off) per 10,000 persons were: for tonsillectomy, 153 and 432; for hemorrhoidectomy, 11 and 35; for varicose veins, 3 and 7; and for hernia repair, 18 and 43. Dr. Lewis also discussed the impact of the availability and wide dispersion of the very small community hospitals on the quality of care. "They continue, as a legacy of the Hill-Burton era, to serve as barriers to regionalization for the delivery of medical care . . . sometimes to the point of inefficiency." He added that: "The results presented might be interpreted as supporting a medical variation of Parkinson's Law: patient admissions for surgery expand to fill beds, operating suites and surgeons' time. Surgery has economic consequences for both the patient and the surgeon. The dollar volume that surgery represents to those who perform it must be considered by those concerned with examining the workings of surgical services." (Lewis, 1969).

Perhaps the best source of information concerning the variability in the quality of hospital care across the country is the *PAS Reporter* issued by the Commission on Professional and

Hospital Activities (CPHA). At the end of 1969, over 1300 hospitals in 47 states, the District of Columbia and Puerto Rico (approximately 200 of the total were Canadian) participated in and reported their results to the CPH computer-based data bank. In terms of patients, numbers data were coming into CPHA from more than 10 million hospital patients per year.

Examples of variability from some recent *PAS Reports* follow:

The complication of hospital infection. (excluding maternity and newborns) (Commission on Professional and Hospital Activities, 1969a) — an analysis of discharge reports for a six-month period from 1,193 PAS hospitals showed that the reported incidence of infection developing in the hospital varied from 0 to 224 per 1,000 discharges. The rate for the 90th percentile hospital was 9 per 1,000. The editors state that:

> Somewhat surprising, however, was the finding that 447 hospitals (37%) did not record any hospital infections at all . . . . The fact that larger hospitals show higher complication rates could mean they tend to have more complications or that they define them more broadly. Another possibility is that they tend to record them more reliably: under-recording of complications is more likely to reflect an inadequacy of the medical record . . . than errors in abstracting. (Commission on Professional and Hospital Activities, 1969a).

Electrolyte studies. (non-operated patients given parenteral fluids) (Commission on Professional and Hospital Activities, 1969b) — records were studied from 733 CPHA hospitals for one-quarter year. The patients were nonsurgical discharges from medical services of those reporting hospitals. When this type patient is subjected to parenteral feeding, *e.g.*, by injection of sugar and salt solutions into the veins, it is good (and often vital) medical practice to measure certain chemical elements (electrolytes) in the patient's blood to determine how much of what kinds of chemicals are needed by that individual — and also how often it may be needed. It is discouraging to note that in 160 "small" (discharging less than 5,000 patients per year) hospitals, only 31 percent of the patients were measured for electrolytes which was less than the 50th percentile of "large" (discharging more than 15,000 patients per year) hospitals. (There were 107 "large" hospitals reporting.) "The increase in percent from non-teaching to major teaching hospitals is even more striking than the increases from size group to size group . . . the 50th percentile non-teaching hospital recorded electrolyte determinations in only 44 percent of their parenterally-fed patients, as compared to 87 percent in the same

percentile major teaching hospital." (Commission on Professional and Hospital Activities, 1970.)

Acute coronary occlusion. (Commssion on Professional and Hospital Activities, 1969c) — this report is based on 64,505 patients whose final diagnosis explaining admission was acute occlusion (so-called "heart attack"), of whom 25 percent died. Of the reporting hospitals, ten were selected which were characteristic of the variations among all reporting hospitals. The odds of survival varied greatly. (It should be noted that for the purpose of this study no adjustment was made for age or medical complexity.)

Tonsillectomy profile. The editors state that "investigation and management of tonsillectomy and adenoidectomy patients vary greatly among hospitals, especially investigative (laboratory) tests and drug therapy" — a generous understatement (Commission on Professional and Hospital Activities, 1970). All patients who had a tonsillectomy (T & A) and who were discharged from 1,031 PAS hospitals during the first 6 months of 1969 were compiled. Regarding the important preparation for an operation that simple, but also dangerous on occasion, important findings were:

1. Only 43 percent of all patients were recorded as having a blood pressure taken before surgery — the variation was from only 3 percent in the worst hospital to 95 percent in the best.
2. Whereas almost all patients had a white blood cell (WBC) count on admission, an average of 19 percent of the patients in PAS hospitals were operated upon with a high WBC. This suggests the presence of infection, and in good medical practice is considered a contraindication to operation at that time. In the worst (recorded) hospital, almost ⅓ of all patients went to surgery with a WBC elevated over 10,000.
3. A preoperative fever (temperature 100 degrees F., or more) is, as the elevated WBC, considered a signal to hold off an elective operation such as the T & A. Almost 10 percent of all PAS recorded patients went to surgery with such an elevated temperature. In the worst (recorded) hospital, 18 percent underwent surgery, compared to the best in which this happened to only 1 patient in 100.
4. Because of the nature of the operation, and the potential

for fatal postoperative hemorrhage (although very few in this series were reported as dying following T & A), it is imperative to protect each person by detection of those with a bleeding tendency before surgery. And yet in the average for all PAS hospitals, only 62 percent received one battery of clotting tests, and only 11 percent had the second type (prothrombin time).

5. It is no longer a disputed medical fact that the routine use of antibiotics, in the hope of preventing infection after an elective operation, is wasteful of both money and hope; for a number of reasons, it can be dangerous, though rarely fatal. In spite of this, on the average, in all PAS hospitals, 29 percent received such antibiotic therapy. The best hospital gave this therapy to only 2 percent of its T & A's; yet, as insupportable as the practice clearly is, the worst hospital staff gave such therapy to 96 percent of their postoperative T & A patients.

The data is persuasive and is further remarkable in light of the presuppositions most consumers of health care hold as to the quality and reliability of health care services. Nonetheless, the difficulty in adducing definitive evidence of the unevenness of care provided by the current system, however, is again due to the paucity of available data. Even if more reliable data were available, however, it would have minimal, if any, implications for the current malpractice system. Trend and aggregate data are not relevant to a given claimant's case and therefore are neither collected nor generated by the current system. The implications for the incidence of medical injuries are, however, manifest.

Patients and Physicians — The Praxis of the System

The modes of practice of healing are not, of course, caused by the compensation system engrafted upon them. But they are reinforced by that system. Today, as always, it is generally the patient's responsibility to find his or her way into (and occasionally through) the health care system. Of course, physicians aid in the process of hospitalization — occasionally too willingly — but, in the main, patients themselves provide their first diagnosis, and then seek professional guidance. Having made contact with the provider of services, the patient relinquishes control both over the demand for services and the mix of services which are thereafter determined by the provider. (In

many instances, though, the patient retains some responsibility to "find" specialized services and to follow-up and implement therapeutic regimens prescribed by the physician.)

The system then features reliance on consumer judgment where it is the least informed — at the onset of sickness and after prescription — with provider judgment focused mostly on episodes of care for patients within the acute care part of the system. This anomaly has implications for a compensation system for medical injuries based on notions of fault. Certain questions must be addressed when "fault" must be found: Can fault be predicated where the physician has assumed no duty, as in the case of the patient not having entered the system or having "left" the system to complete treatment on his or her own? Can a patient, on the other hand, be said to have been contributorily negligent for failing to alter a regime of treatment when within the system the physician calls all the shots? Finally, can any fault-based system remain viable when the duty for care shifts back and forth between patient and physician depending on the praxis of the system?

These problems — which are problems inherent in the assessment of fault — also reflect the fact that our health care system simply does not care for the whole patient, but only for that patient whose acute conditions compel him to come calling. When the approach to the patient is piecemeal and episodic, it can be argued that "occasions" for medical injury arise in the interstices. (This neither means that more continuous care is free from potential injury to the patient, nor that medical injury necessarily occurs when the patient is not under supervision; it means only that conditions can arise when care is episodic, where it is possible to argue that medical injuries are more likely to occur than if care is less episodic.) Similarly, tort-based compensation for injury is not based upon consideration of the whole patient nor the overall outcome (nor upon the whole path through the system which patients tread from onset of illness to good health). Rather, compensation for injury incurred at some discrete point upon that path is dependent upon subtle shifts in tort-based derivations of responsibility. In short, legal duty is hard to define in a system where practical duty is hard to define. And, of course, the whole basis of tort-based recovery is that if legal duty can't be found, no recovery can be made.

Trends in Third-Party Payment for Health Care Services

The United States does not have a comprehensive program

for public support of health care services.. But it does have a patchy fragmentary "system" providing coverage on a categorical basis for those over 65 under Medicare and some of the poor under Medicaid, irrespective of age. Currently the cyclic nature of Congressional concern for the health of the citizenry is turning steadily to national health insurance schemes. Many bills have been introduced in the Congress as of the date of this writing. It seems inevitable then that a relatively comprehensive plan will be enacted in the next roughly four to six years, although in the interim incremental expansion of current coverage under Medicare and Medicaid are expected.

What are the salient characteristics of third-party payment for purposes of compensation? First, the mechanism of third-party payment for services (both public and private through privately procured health insurance coverage) without cost containment measures such as fee schedules, etc. tends to trigger escalations in the cost of those services. With third-party payment, consumers could care less about what services cost and the providers of those services are likely to perceive the fiscal advantages of gradual increases in the price for services. A concomitant of steady cost increases is public concern over the cost of care and accelerating scrutiny of provider activity. Providers today are perhaps more defensive about their practice and their methodologies than ever before. Under such conditions, regulation of the quality of care tends to become a fall-back position — a province where none but experts may safely enter.

Second and most importantly, the advent of broad-based deep coverage of health care services through a national health insurance plan will unquestionably increase utilization of services for the segments of the population benefiting from expanded coverage. Thus, an ineluctable increase in demand will be exerted on a system marked by critical shortages of personnel. Not only will there be more patients with purchasing power, creating a less favorable ratio of providers to prospective patients, but the demand pressure will not necessarily adjust to the distribution of health care resources fast enough, if at all. In short, those newly covered or benefiting from expanded coverage under a national health insurance plan are not likely to live in areas adequately served by providers, but will be forced to focus their demands at the seams of geographic areas which are adequately served.

DOES THE CURRENT SYSTEM OF MEDICAL INJURY REPARATIONS "REGULATE" THE QUALITY OF CARE?

In one sense the answer to this question is clearly "yes." For the physician who has been patently negligent and has suffered the opprobrium associated with any consequent litigation, the lesson is plain. But nevertheless in most instances malpractice litigation is not otherwise corrective and thus does not necessarily result in higher levels of quality care. This is true for three reasons: social-professional, economic, and systemic. Each reason will be taken up in turn.

Professional-Social

Except in the egregious case, or when the physician-defendant acts like a pompous ass, his professional (and often social) coterie will usually commiserate with him rather than ostracize him. In short, informal professional and social penalties are rarely meted out. This phenomenon is not dissimilar to what some attorneys label as the "conspiracy of silence," the unwillingness of practitioners to testify against other practitioners in malpractice litigation. There is recent evidence, however, that physicians are increasingly willing to offer testimony against their fellow practitioners. Each stems from a common root: the professional drive for prestige and stature which, of course, is compromised by allegations of malpractice. The threat to status is real with malpractice which poses both professional and economic dangers. The economic threat may, however, be over-rated.

Economic

The health care system currently bears the bulk of the cost of medical injury compensation through the purchase of insurance along with self-insurance in limited instances. However, as with much other tortious behavior, since physician error is an insurable event, the financial risk is spread and the deterrent impact of liability is thinned. Insurance premiums for malpractice are admittedly high, but then so is physician income. Furthermore, the economic burden of premiums does not fall on the insureds in proportion to their sins — if it did it wouldn't be insurance. And even for those physicians whose premiums rise because of poor claims experience, there is no mechanism to force them out of practice; they can usually generate enough income to cover even astronomical premiums and still live comfortably while steadily passing on premium costs to their patients. All of this is not to say that insurance costs, especially if they are high, have no deterrent

effect on the behavior of the physician, but that the impact is greatly diffused by the insurance mechanism.

Systemic

Third and finally, existing mechanisms for regulation of the quality of care do not reflect malpractice claims experience. In no case are the outcomes of malpractice litigation reported to be the gravamen for disciplinary or corrective action by regulatory bodies, either public or professional. Malpractice findings are not considered germane to the issue of provider discipline. Rather, the grounds for disciplinary action are largely ones of moral terpitude (Derbyshire, 1969).

Further, accreditation programs for health care facilities do not include litigation records when assessing the capacity of an institution to provide creditable and acceptable levels of quality care. Finally, none of the few substantive continuing education programs which have been inaugurated in recent years have sought to tie evidence of provider sub-performance, as reflected in malpractice claims experience, to corrective regimens administered through such programs.

WHAT WOULD BE THE IMPACT OF A NO-FAULT SYSTEM ON THE PRACTICE OF MEDICINE AND PARTICULARLY ON REGULATION OF THE QUALITY OF CARE?

What is a No-Fault System?

Before discussing the implications of a no-fault compensation system and drawing contrasts with the current system, a few basic principles about the concept should be stated. This can be done succinctly by describing one possible pilot system for compensation for medical injury which is not based upon fault.

A Pilot System

In State A patient X enters the health care system at time Y. Once in the system the patient receives whatever the collective wisdom of the providers with whom he comes into contact deem appropriate therapy. At time T, X is discharged and upon getting home discovers that his left knee-cap is missing. At this point the scenario changes. Under the current system X sees his brother-in-law's cousin who happens to be an attorney. Under a compensation system, however, instead of fomenting litigation, X limps back to the hospital and contacts the physician who was in charge of his care. If the physician and/or hospital agree with X that losing one's knee-cap in the course of a tonsillectomy (or some other less "unrelated" pro-

cedure) is untoward, a joint filing of a claim for compensation could be made by X and the provider(s) involved. If, on the other hand, the provider(s) disagrees, X may file a claim unilaterally. In either event the claim would be initially reviewed by an administrative agency to determine whether or not the claim arose in the course of medical care (in time between points Y and T), or conversely, in the case of X, occurred while bowling or scrubbing the kitchen floor. This latter determination should be relatively easy to make. Ascertainment of the nexus between a patient and the health care system is fairly obvious (except probably in cases in which claims arise for injuries allegedly manifesting themselves after discharge). A patient's contacts with the health care system are much more discrete than a worker's contact with work where all kinds of putatively compensable events can occur. For example, in the employment context questions as to an employee's relationship to his employment arise at all the edges of his normal work tasks — on the way to work, on the way home, at the company picnic and so on. In the health care system, since the number of causative agents are vastly fewer and because the patient enters and leaves the health care system and the provider's ministrations at very definable points (points Y and T in X's case), the number of cases in dispute should be proportionately far fewer. After all, an employee can be injured in any number of ways and recover as long as he is an employee when injured. A patient, it is true, must be a patient (an event of much less duration and breadth) but must also be injured only by agents of the health care system. Thus, by reverse analogy, if the test for compensation for medical injury were transposed to the employment context, only injuries sustained by employees caused by contact with the employer or his agents would be actionable — not injuries from other sources like fellow employees, streetcars, parking lot attendants, baseball bats, and defective machinery.

After a determination of "standing" to bring a claim had been made, the patient's progress and degree of recovery would be pegged, and a technical determination made as to (1) whether the injury was "unexpected" in the sense that some medical care results deviate from ranges of expected results for given procedures, and (2) if unexpected, the degree of disability incurred. To this latter determination would be applied a compensation mechanism, whether a schedule of injuries or "ad-hoc" derivations of damages by special panels, etc. There are

a host of questions which percolate up from this brief sketch. There are also a number of variations of patient X's progress which could be delineated to generate a complete presentation of all of the possible administrative alternatives. I have followed X on an admittedly superficial journey through the system so as to construct a "mind's eye" model to lay the foundation for the analysis to follow.

A fuller analysis of the major clusters of issues is now possible. The next section will elaborate some of the medical-technical issues of how to implement a no-fault system, given the state of the art of measurement of health care results. (This is undertaken first because without the technology to measure results as distinguished from determination of compensability based on fault, analysis of the rest of the issues is academic.) Lastly, I will discuss all of the major issues necessary to assess the expected impacts of a no-fault system on the delivery of health care.

The Concept of No-Fault

Mr. Justice Black was fond of iterating in First Amendment litigation — " 'no law shall be made' means that no law shall be made." Similarly, no fault compensation may be said to be no-fault compensation. What do those terms mean when applied to compensation for medical injuries? In comparison with other torts, the concept of no-fault as applied to claims for medical injury may be the most difficult to reify. It has been a long time since the first comprehensive no-fault system — workmen's compensation — was adopted. Expected sequels did not materialize except in the case of some limited federal compensation systems. But recently there has been substantial ferment surrounding development of no-fault alternatives for handling claims for injuries arising out of automobile accidents.

Conceptualization of a no-fault system for automobile accident compensation is relatively simple. The determinant of recovery, once fault-finding is removed, is merely whether or not the injury was caused by an accident which is covered by the system. A car crash is a car crash is a car crash. But, the task of isolating a determinant of recovery for medical injury compensation is far more complex if one assumption is made — that the health care system is not the insurer of its patients. Hence, once the notion of fault is eliminated in fixing compensable cases for medical injury compensation, something else must be substituted which is analogous to, but very different from, the car crash. The image of a continuum for compen-

sation of medical injuries will help to explain my point. At one end is the current compensation system which rests upon scrutiny of episodes of care to detect tortious conduct proximately resulting in harm to a patient to whom a duty to provide care free of harm was owed. The system is intricate, involves different issues for determination, and requires sophistication by judge and jury. But it *does* work in a roughly pragmatic sense. At the other end of the continuum, a "social insurance" scheme can be conjured which would afford compensation to *all* those who pass through the health care system and come out at the other end in worse shape than when they went in, leaving aside any relationship between the "outcomes" of care and a set of expected outcomes for like procedures. This latter "model," while admittedly a no-fault system (and possibly preferable from a purely "remedial" perspective), is not the kind of system that is likely to evolve (if any evolves). Thus, a middle ground is needed. This "middle ground" can be premised upon the notion that compensation for medical injury should be tied to the degree of deviation of a given result from a set of expected results for like procedures. It is thus distinguishable from a medical injury "social insurance" system which would measure only what happened and would not contrast the "what" with what was expected.

If the health care industry is conceived of as an enterprise occasioning compensation of those who suffer harm through the conduct of that enterprise, a determination must be made whether or not the patient's prognosis at discharge (or at the time of filing a claim) is "worse" than it should have been, or "worse" than expected, *given* the procedures and regimen of care utilized for that patient. This is required unless a social insurance system unique to health care is created which would compensate any state of disability occasioned by medical care even if the result of care was wholly expected. For example, a gangrenous leg must be removed; if removed, the patient has one less leg and would therefore be compensated for that loss.

A limited amount of this kind of inquiry is, of course, necessary for automobile claims as, for example, with claimants with pre-existing disabilities, but again what is unexpected and therefore compensable under an automobile compensation system is the "crash." In the context of medical care, that "crash" is very hard to define and isolate, and even if it is found, it must still be determined whether or not it would have happened anyway, *i.e.*, whether or not it falls within an unexpected

range of results. Thus, if a no-fault system is to be developed which does not simply ensure compensation for disability incurred by patients, irrespective of the degree of deviation of a given disability from what was expected, we are faced with two major sets of problems. First, a subset of statistical issues: Can scales reflecting ranges of results for all sufficiently discrete procedures be developed, and how soon? Second, if such scales can be developed, how can they be utilized (if at all) to determine who will be compensated; and, if a determination of compensability can be made, how much will that compensation be?

I have a few comments about some of the statistical issues, but questions relating to implementation of a no-fault system which are essentially legal-administrative in nature are beyond the scope of this paper.

Statistical Issues

The development of compensation scales is dependent upon the state of the art of the measurement of "outcomes" of health care. The technology for measurement of outcomes is, however, still in its infancy.

There are four basic types of measures of the quality of health care:

1. **Conditions of care or input measures:** controls over inputs into the system such as health professional licensure, institutional accreditation, continuing education requirements, etc.
2. **Process measures** (or medical audit) focusing on the decisions and actions that are taken in providing care by review of the medical record on a case or statistical basis, *e.g.,* medical audit committees, peer review and tissue committees, etc.
3. **Outcome measures** which focus on the end results of care, judging quality on the basis of the patient's condition after an episode of care has concluded (*e.g.,* dead, deteriorated, improved, recovered, etc.), compared to expected outcome rates for similar age group, disease, etc.
4. **Health status levels measures** of health status for defined population to assess quality on the basis of mortality and morbidity rates for such populations of patients.

Given the crude state of the development of technology

to measure outcomes, it is estimated by experts that at least 5 to 10 more years of substantial research will have to be undertaken before outcome measures can be developed which are sufficiently sensitive to utilize in a regulatory scheme.[5] It is presumed, as the technology for outcome measure progresses, that scales of health care results as a subset of that technology will become realizable.

A special problem relates to the peculiar demands made upon outcomes technology for purposes of compensation. Development of outcomes technology for academic purposes and even for gross regulation of the quality of care delivered by health care providers is not necessarily sensitive enough for determinations of compensability. For systemic regulation, the inquiry focuses on "aggregate" gross measures of efficacy in treatment, such as morbidity levels among working male patients, etc. In terms of compensation, however, aggregation (although probably necessary to develop initial scales of results) cannot be used alone to determine whether a given claimant will or will not be compensated. For purposes of a compensation system, determinations of compensation must be individualized (dis-aggregated if necessary) to facilitate plotting a given result for a specific patient (with all the predictor variables associated with that patient taken into consideration) against the scale or scales or results for the procedures performed upon that patient.

Speculations on the Impact of No-Fault Compensation

Following the analytic framework utilized earlier, the impacts of a no-fault system can be traced along the three dimensions: professional-social, economic, and systemic. But first a few presuppositions and a digression.

1. A no-fault system to determine compensation "black boxes" the methodology of care and focuses exclusively on the "outcomes" of care.
2. To the extent possible, a determination of compensability should be based upon an objective means of evaluating a patient's "outcome" against scales or measures of results for the procedure or procedures in question.
3. Compensation (under a no-fault system) therefore is not paid for all disability states resulting from the provisions of health care services (theoretically many health care results leave the patient in a more "disabled" state than before he or she entered the system) even if they

produce an optimal recovery; rather, compensation is paid for the degree of deviation of a patient's outcome from a range of expected outcomes for like procedures.

4. Finally, while assessments of compensations are made without reference to the behavior of the providers, once compensation issues have been resolved, "process reviews" of provider behavior (and other "disciplinary" mechanisms) to correct sub-performance ostensibly contributing to (if not proximately causing) the claim in question can and should be made.

Now a digression. This is an attempt to explain what impact a no-fault system of compensation for medical injury is likely to have upon the delivery of health care and particularly how the findings and related data generated by such a system can be used to regulate the quality of care. The impact of the current malpractice system is twofold: it tends to partially cause and reinforce the practice of conservative medicine and thus has some kind of impact on the levels of quality produced by the delivery system, except that malpractice findings are not formally utilized to regulate the competence of providers. Nevertheless, before discussing what impact a no-fault approach might have, as well as its implications for regulation, some attempt should be made to better define the impact the current system has, *i.e.*, if the current system does in part cause the practice of conservative medicine, is that "good" or "bad"? The value of deterrance as a product of a compensation system depends upon some assessment of the merits of the product — the medicine that is practiced as a result. Any arguments on this subject are necessarily philosophic and conjectural. But discussion will facilitate comparisons between the impact of the current system and the impact of a no-fault system.

As pointed out above, malpractice is alleged to cause conservative behavior by providers under the threat of litigation. However, the validity of arguments in favor of the deterrent effect of a tort-based system presupposes that conservative medicine of the sort ostensibly inculcated by malpractice is better medicine. There are three (somewhat interrelated) reasons for doubting this:

1. Since we know very little about how to objectively measure the quality of care, it is hard to say that "conservative" medicine is necessarily conducive to good health care results any more so than is "less conservative" medicine or "average" medicine, or whatever. In short,

without adequate measures of the quality of care, the argument is at loggerheads.

2. The practice of conservative medicine, even if arguably good medicine, does stifle innovation both by individual practitioners (in organized systems of care or not) and within the system generally. Innovation can lead to better care if properly channeled — expanded utilization of allied health personnel is an example. If the constraints to such utilization (one of which is professional conservatism engendered in part by fear of malpractice) were removed, it is conceivable that more care could be brought to more people. Although it can be argued that achievement of such a "distributional" impact is a trade-off with quality, the argument may be hard to support. For a great many health care procedures, the less intensely trained technician may better serve the patient at less cost and with less hassle. There are other illustrations which could be added. Nonetheless, questions of trade-offs lead to the third argument.

3. The notion of conservative medicine may be part of a larger concept of medicine — possibly even an anachronistic way of thnking about medicine. It is grounded in the idea that highly specialized individuals treat people who can find their way to them for whatever price the market will bear — and since there is little discernible market in health care, that price is very nearly what the physician wishes to charge. In this subtle way what we tend to think of as "quality" care beomes inextricably related to the mode of practice that the providers have fashioned for themselves. Thus to imply that conservative medicine — that Medicare ostensibly reinforced by the deterrence inherent in a tort compensation system — is better medicine begs the question. Providers first tell us how they want to practice and thereafter define quality as that which is provided by those practitioners whose style of practice most closely approximates the paradigm. This might be meritorious if it was intentional but, of course, it is not. It has simply happened. Thus, it is possible for malpractice to be a deterrent to the practice of medicine *which is different* than that which is customarily provided and which malpractice itself mirrors through the legal imprimatur implicit in the disposition of cases. In short, we know what might be deterred be-

cause it isn't generally done, but we don't really know whether what is being deterred is bad medicine. We all, providers and consumers alike, lack the distance from the subject. We need to re-think what the quality of care is. Gaining this distance is frustrated by current malpractice law which first follows customary practice and then slowly freezes those customs into dogma. Change then becomes extremely difficult because of the interrelationship of the law and medical practice — neither can move first. Each reinforces the other's stasis. In this way, then, one can question what is being deterred by malpractice — bad care or a new way to define good care.

Professional-Social

One of the major causes of provider criticism of the current malpractice claims system is the adversarial process and its concomitants. The physician-defendant often simply fails to comprehend why he must be made the villian of the piece. In most instances he feels that he has tried to do what was right for the patient; and very often he probably has. The disapprobation which plaintiff's counsel must attach to the practitioner's actions seems to offend the physician-defendant more deeply than the average tort defendant. This may be because allegations of malpractice strike directly at the physician's professional career and competence, whereas most tort allegations focus on isolated acts of persons otherwise professionally or profitably engaged. Given the above, it is not illogical that provider reaction to malpractice is highly defensive.

A no-fault system strips away the interrogative aspects of malpractice and focuses instead upon the nature and extent of a patient's prognosis. The physician is no longer made the subject of an extensive examination in order to determine whether any recompense will be made; nor is the concern, for purposes of compensation, with discrete provider behavior in an episode of care. Thus, expert testimony relating to the malor misfeasance of a fellow professional is not required; neither is penetrating examination and cross-examination of the defendant. Since "fault" need not be predicated, pursuit of the etiology of an injury is irrelevant. It follows then that providers may be more willing to participate in furnishing information upon which to base compensability decisions in an atmosphere free from fault-finding. What are some of the implications for provider self-regulation?

There have been two reasons for the failure of much provider self-regulation thus far. The first is that regulatory systems have been and are controlled by providers, violating a fundamental precept of regulatory theory. Paradoxically, however, the capture of the disciplinary process has not been covert but designed by state enabling legislation mandating provider control of the disciplinary machinery. The second reason is that, while competence is acknowledged to be important by providers, lacking definitive measures of competent performance, disciplinary proceedings have not been based on such grounds. This is in part because providers have been able to argue that to do so would be both unfair and capricious. Of course, state laws with rare exceptions have not recited "competence" as ground for disciplinary action, but such statutes are virtually dictated by organized medicine in most states and thus only mirror the prevailing sentiments of providers on the question. A shift to no-fault compensation should, however, increase the likelihood that disciplinary statutes will reflect a concern for competent performance; utilize such indisputable evidence of provider sub-performance as is available through recorded process reviews of provider behavior occasioning claims and finally relax the grip of providers over regulatory agencies by lessening their concern over consumer involvement because the judgments to be made in disciplinary cases are less subjective and presume less expertise under no-fault. All of this can be reasonably expected because a no-fault system is ostensibly more compatible with the health professionals' view of the appropriate means to assess competence and penalize incompetence.

In short, peer pressure mediated through various regulatory devices is more likely to be effective under no-fault because it can be based upon hard evidence of the claims experience of a given provider (who has accrued this claims experience through a more objective assessment of his competence), and can, for example, be channeled into provider mandated continuing education programs to cure demonstrated deficiencies. Most importantly, data on provider performance which are not derived from the crucible of malpractice will make it more likely that disciplinary proceedings can be based in part upon claims experience.

There are two caveats, however. First, in gaining provider acceptance and cooperation in a scheme of this sort, reasonable levels of compensation for the medically injured should not be traded off. Second, while it is true that compensability deter-

minations need not rely upon the isolation of provider negligence, subsequent articulations of provider performance based upon data furnished through a compensation system to facilitate discipline may be as vigorously resisted as current efforts are fought, and may lead to distortion of the data needed to fix compensation or provider indifference to compensation findings, or both.

Economic

As noted previously, the insurable event of malpractice does not deliver much of a deterrent impact. Although the means of financing a no-fault system are many, any option chosen could be tailored to build in economic deterrents. There is a threshold problem, however. If a no-fault system is to be logically consistent, no inquiry to fix fault in order to determine compensation is permissible. And if no "responsibility" in this sense is established, the means to apply economic sanctions for underperformance to individual providers is not available. Thus, either such sanctions cannot be based upon the findings in a no-fault scheme, or an attempt must be made to separate issues of compensation from modalities of regulations of quality through economic means (or, for that matter, other means as well). This is one of the inherent dilemmas in the no-fault approach. It also furnishes the grounds for one of the major assaults directed at no-fault by its critics.

What critics argue among other things is that the odium associated with the current tort system, together with the costs to the insured, act as deterrents to negligent behavior. Most of this discussion has taken place in the context of reform of the tort liability system for auto accidents, but should be applicable here. In fact, it may be more applicable because one of the main counter-arguments offered by the proponents of no-fault reform for automobile tort litigation to the point that deterrence is vitiated — that drivers are sufficiently deterred from careless behavior by the potential for their own harm in an accident — is not pertinent when applied to medical injuries; the physician is not normally vulnerable to physical harm when treating patients. In addition, there is some impressionistic evidence that the threat and in part the costs of malpractice do cause defensive and conservative practice by physicians. No thorough studies have been done, but there is anecdotal and survey information to this effect.

Despite the above, I believe that deterrents to under-performance by providers are largely independent of the fear of

malpractice and the consequent cost implications. Two arguments can be marshalled. First, as noted in a previous section, the costs of provider insurance are sufficiently spread and physician income so high that premium increments due to underwriting adjustments in malpractice pose an almost negligible impact on an insured's behavior. The only significant affect premium leverage has may be on specialist groupings of physicians whose underwriting experience is so adverse that premiums for the entire specialty grow enough to trigger provider-sponsored (and occasionally carrier-sponsored) programs on how to avoid malpractice. I do not mean that medical society and carrier-sponsored "malpractice avoidance" programs for physicians are not efficacious, but that they are not stimulated alone by the fears of physicians or by the costs to the physicians.

Second, it is true that physicians are not usually subject to bodily harm during patient treatment and thus are not comparably deterred from careless behavior *for this reason* as is a driver. Nevertheless, professional pride, training, and codes may provide a substantial deterrent even in the absence of the threat of bodily harm or economic sanction. The only rationale for this point is hortatory, but I think there is something about professionals and their actions *as* professionals that distinguishes them from persons who are carrying on some of the more mundane tasks of everyday life.

Irrespective of the above, a no-fault system can be developed which incorporates economic deterrents to under-performance. The major mechanism is not dissimilar to underwriting classifications of risk under the current system. Assuming a no-fault compensation system is funded by the health care industry, as it is now, and is funded without an insurance mechanism, a form of experience rating is easily conceptualized. In fact, such a system might be more fair than current insurance underwriting practices where premium variations are based largely on the actuarial likelihood of malpractice, rather than on actual claims experience. Of course, if a new system was privately insured, it would not differ much from the current system in terms of economic sanctions unless prevailing insurance industry underwriting procedures were abandoned.

Systemic

There are four points I wish to make in this section.

First, as pointed out earlier, elimination of fault-based compensation will correspondingly remove one of the major

obstacles to innovation in the system. Of course, to assume that innovation is desirable may beg the question unless it can be demonstrated that such innovation will result in higher levels of quality, or comparable kinds of quality at lower cost. There is, however, reason to believe that innovation is likely to be advantageous in a nearly moribund system. Moreover, there are certainly safeguards which can be installed to insure that quality is not sacrificed at the altar of innovation.

Second, the implications of no-fault for regulation of the performance of providers are many. Some of these have been noted in the sections above. Briefly stated, a shift to no-fault would make it possible to develop a data system to systematically monitor provider claims experience and feed back such information to whatever public and/or professional regulatory structures are set up. To do this does tend to compromise the purety of the no-fault concept because inevitably providers will seek to traduce the data collection effort if the findings can be subsequently used against them. But this is a risk that may have to be taken if the no-fault approach is to accomplish the goals of both compensation and regulation.

Since the relationships between continuing education, process reviews, and disciplinary procedures and no-fault have been examined in a systemic context in previous sections, nothing further will be added here.

Third, the health care industry is undergoing a very slow but significant transformation. Very gradually, the unit for delivery of care is becoming larger. Not too many years ago the solo practitioner represented virtually the only visible organizational model. Today providers are grouping together to form group practices both on a multi-specialty or one specialty basis. Further, larger organizations such as Kaiser-Permanente have been formed by integrating the provision of care with other organizational attributes and phenomena such as marketing, capital formation, branching, etc. There are a number of reasons for this, including economies of scale and the provision of perquisites to practitioners such as regular hours and relief from paperwork. This development has been capped recently by the federal government through its proposed amendments to federal health care financing programs which would facilitate prepayment to such organizations.

The sustained evolution of the organizational form in providing medicine from small to large units augers change in the means by which financial responsibility for the quality of

the product is assured. The argument runs like this: With a large unit of care the nature of the relationship between provider and patient changes. No longer does the patient receive care from one or two practitioners for episodes of ill health. A large organization will enroll patients and contractually agree to provide all the health care services which are necessary for those patients for defined periods of time. Under this arrangement a patient may not see the same physician every time he or she seeks help. Furthermore, the patient is more likely to receive prescriptive treatment on a sustained basis with whatever preventive care services are determined to be cost effective to the organization. Crudely stated, health care under these circumstances is analogous to car repair — a contract for repair is made, and the car is treated and released. Now if the car is still running poorly after service, the owner's recourse is against the company, *not* against the mechanic or mechanics who may have worked on it. Following the analogy, a shift in the law to accommodate organizational responsibility for the patient's health can be expected, and if desired, fostered through legal procedural innovation. This is neither to say that this mode of legal redress would be necessarily exclusive to the plaintiff, nor that it is preferable to litigation against the tortfeasor individually. Rather, the argument is premised on both conceptual and historical considerations. The law changed this way through the evolution of *respondeat superior* and products liability doctrines. Their confluence furnishes the premise for the argument.

If this kind of shift takes place (and elements are now discernible through recent tort case law affecting the malpractice liability of hospitals), it can be argued that a no-fault system would be more effective than tort law both in affixing responsibility for compensation, and in controlling the quality of care delivered by such organizations. This is so for two reasons: First, even a no-fault system must identify providers associated with claims in order to obtain diagnostic and prognostic data to determine disability levels. In the case of individual and smaller units of providers, identification of the actual practitioners involved may be difficult because more than one provider unit may have been involved (referrals to specialists, consultations, etc.). However, with a large organization which is contractually obligated to furnish all necessary care to a given patient only one provider unit — the organization — is involved. Thus, the task of procuring data is eased, par-

ticularly in view of the chaotic state of medical record technology (*e.g.*, lack of comparability between the records of one provider unit and another).

The second reason stems from the implications for regulation of providers by providers. It is more likely that effective regulation by providers will take place in the environment of a large organization based upon hard information which can be furnished by the compensation system than if such data is fed to individual providers or to external provider self-regulatory systems. An organization, which is itself the legally responsible party in a claim for compensation, possesses the incentives to (1) internally monitor the processes of care to insure that quality will be achieved and (2) sanction practitioners (either employed by or affiliated with the organization) whose conduct leads to an inordinate number of claims. To use another crude example, if a truck runs over someone through driver error, it is more likely that the driver will be sanctioned if he is an employee of the trucking firm than if he is the driver-owner of the truck.

The final point is related to two previous points: (1) the general development of outcome measures to monitor the quality of care independent of their use for compensation purposes and (2) the rigidification of the conceptual underpinnings of quality measurement enforced by the current malpractice claims system. Briefly stated, a shift to no-fault would liberate us from a system of reparations which focuses on discrete human acts, irrespective of the degree of relationship between those acts and the actual outcomes of care. To genuinely insure that quality care is being achieved not only must we think through carefully what we as a society mean by and *want* to represent quality, but we must develop the technology to objectively measure whether we're getting it. A no-fault system then offers the opportunity to achieve three things: a reconceptualization of quality, a retooling of the praxis of the system free from the constraints and imperatives of tort-based reparations, and the design and installation of an outcomes monitoring system to measure the quality of care with its concomitant — individualized determinations of health care outcomes for fixing compensation for medical injury when warranted.

FOOTNOTES

[1] A good summary of the D.O.T. analysis can be found in Bombaugh (1971).

[2] A professional survey conducted by the AMA in 1970 generally confirmed this testimony.

[3] See generally 44 A.L.R. 1418 and 57 A.L.R. 978. Also *Willett v. Rowkamp* (1938), *James v. Mulder* (1925), and *July v. Mellor* (1931).

[4] A good analysis of prepayment of health care services as a means of influencing organizational change in the health care system has been undertaken in *Harvard Law Review* [Note] (1971). Further, an excellent discussion of the "market" for health care service appears in Havighurst (1972).

[5] This estimate has been made by Dr. John Williamson, a recognized expert on the measurement of health care results, at a conference I attended. Dr. Williamson has since corroborated this figure.

CASES

Darling v. Charleston Memorial Hospital, 33 Illinois 2d. 326, 211 N.E. 2nd 253 (1965), *cert. denied*, 383 US 946 (1966).

James v. Mulder, 232 Michigan 183, 205 N.W. 159 (1925).

July v. Mellor, 163 Washington 48, 299 P. 660 (1931).

Monohan v. Devinny, 131 Mississippi 248, 225 N.T.S. 601 (1927).

Willet v. Rowkamp, 134 Ohio 285, 16 N.E. 2d 457 (1938).

REFERENCES

BILLINGS, James E. (1971) "Some Cost Estimates of Medical Malpractice Compensation," Minneapolis, Minnesota: Institute for Interdisciplinary Studies.

BOMBAUGH, Robert L. (1971) "The Department of Transportation Auto Insurance Study and Auto Accident Compensation Reform," 71 Columbia Law Review 207.

COMMISSION ON PROFESSIONAL AND HOSPITAL ACTIVITIES (1969) PAS Reporter. Ann Arbor, Michigan: PAS (September 2, September 15, October 6).

..... (1970) PAS Reporter. Ann Arbor, Michigan: PAS (March 9, 1970).

DEVEY, C. (1969) "Towards Automated Health Services" 67 Proceedings of the Institute of Electronical Engineers 1830.

DUBOS, Rene (1959) The Mirage of Health. Doubleday.

FEIN, Pashi (1967) The Doctor Shortage. Washington, D.C.: Brookings Institute.

FLORIDA LAW REVIEW [Note] (1966) Florida Law Review 625.

GLAZER, Nathan "The Paradoxes of Health Care," The Public Interest, Spring, 1970.

HALBERSTAM, Michael (February 14, 1971) "The Doctor's Dilemma — Will I be Sued," New York Times Magazine.

HARVARD LAW REVIEW [Note] (1971) ..... 84 Harvard Law Review 887.

HAVIGHURST, Clark (1971) "Health Maintenance Organizations and the Market for Health Services" 35 Law and Contemporary Problems 716.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION (1969) "Development and Growth of New Allied Health Fields."

LEWIS, C.E. (1969) "Variations in Incidence of Surgery" 281 New England Journal of Medicine 880-884.

McCLEARY, Robert, *et al.* (1970) One Life—One Physician. Washington, D.C.: The Center for Study of Responsive Law.

MEDICAL PROTECTIVE COMPANY. "Pretrial Malpractice Screening Panel — A Commentary." Fort Wayne, Indiana.

SHARPE, David J. (1970) "Contingent Fee — Physician Protection" Trial, Vol. 6, No. 2, p. 21.

SPARLING, J.F. (1962) "Measuring Medical Care Quality: A Comparative Study," 36 Hospitals 62.

SUBCOMMITTEE ON EXECUTIVE REORGANIZATION TO THE COMMITTEE ON GOVERNMENTAL OPERATIONS. Medical Malpractice: the Patient v. the Physician. Washington D.C.: U.S. Government Printing Office.

U.S. DEPARTMENT OF HEALTH, EDUATION AND WELFARE, SOCIAL SECURITY ADMINISTRATION (1969) "The Size and Shape of the Medical Care Dollar," Washington, D.C.: U.S. Government Printing Office.