

ALASKA LEGISLATURE SPECIAL COMMITTEE/SUBJECT FILE
1718 SCOMM 69: HOUSE LIABILITY INSURANCE TASK FORCE, 1989-1990⁸⁶⁷² 286

We expected lawyers to vary in the *case management* techniques they used and that these differences might affect the hours they put in. We used three indicators: standard operating procedures (SOPs), plans, and client control. We thought that the lawyers who developed standard operating procedures (e.g., the use of preprinted forms, computer programs, and the like) for *estimating case value* (26) and for *pretrial events* (25) would be able to reduce the number of hours spent on a case, other things being equal. Explicit planning should also increase lawyer efficiency and thus decrease time spent: *plans for motions* (27), *plans for settlement* (28), and *plans for discovery* (29) indicate whether or not the lawyer reported planning in advance for the activities in question.

We thought *client control and participation* (30) would influence hours spent, but that the effect would differ for hourly fee lawyers and contingent fee lawyers. Following Johnson (1980-81), we thought that hourly fee clients would most often want to reduce the hours spent by their lawyers and contingent fee clients would try to increase the time spent by their lawyers. For these reasons we expected that a high level of client control for hourly fee lawyers would reduce the number of hours those lawyers worked on a case, other things equal. In contrast, we expected that for contingent fee lawyers high client control would lead to an increase in the number of hours the lawyer would work on the case (see Rosenthal, 1974). We measured the client control variable using the lawyers' descriptions of (a) reporting procedures to the client and (b) the client's participation in the key decisions in the case.

Our complete model includes the dependent variable "hours" and the 30 independent variables that we thought might explain variation in hours expended. In developing our model, we had to rely on "empirical feel" as well as on existing theory since the available theory was incomplete and largely untested. Table 1 sets forth all the variables described above, including measurement method, summary statistics, and the expected direction of the relationship (0 designates variables for which we had no expectation of the direction of the possible effects).

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28 **IMPACT OF FEE ARRANGEMENT**

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Medical Malpractice Experience of Physicians

Predictable or Haphazard?

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This study uses a large malpractice database from Florida to assess the concentration of losses among physicians, predictability of claims experience, characteristics of physicians with favorable vs unfavorable experience, and effects of claims experience on physicians' practice decisions and on actions taken by the state's licensing board. Most payments by insurers involved a comparatively small number of physicians. Physicians with relatively prestigious credentials had no better, and on some indicators, worse claims experience. If anything, physicians with adverse claims experience were less likely to make subsequent changes in their practice, such as quitting practice or moving to another state. Physicians with very poor claims histories were more likely to have complaints filed against them with the Florida licensing board, but the sanctions against physicians with either poor or excellent histories were not severe. Physicians with adverse claims experience from incidents that arose between 1975 and 1980 had appreciably worse claims experience from incidents that arose during 1981 to 1983.

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MEDICAL malpractice is in its second decade of "crisis," a crisis that has medical, insurance, legal, and public policy dimensions.¹ Physicians frequently complain about the increased threat of lawsuits and the substantial rise in premiums. Moreover, it is said that some physicians are refusing to accept high-risk patients, retiring earlier, leaving certain fields such as obstetrics, and ordering more tests than medically neces-

sary in order to defend themselves in the event of a lawsuit.^{2,3}

Questions naturally arise about the relationship of physicians' competence and malpractice experience. Some observers fear that a few "bad apples" among physicians cause the lion's share

See also p 3320.

of malpractice suits. Others contend that the best physicians are most likely to face lawsuits—those willing to provide high-risk care to litigious patients.

All physicians have been affected by the threat of malpractice claims and most have had claims filed against them.

However, some physicians have much worse claims experience than others. This study addresses the following issues relevant to the randomness of claims and the appropriate reaction to it: What fraction of total malpractice payments on behalf of insured physicians is accounted for by the physicians with the largest payments? How does the concentration of payments compare across risk classes? How well does claims history predict future claims? What are the characteristics of physicians with adverse claims histories? To what extent does an adverse claims history predict future decisions by physicians about their specialty, movement to another state, and retirement? Are physicians with bad claims experience more likely to be brought up for disciplinary action by the state licensing board?

METHODS

Data Sources

Most data for this study came from the Florida Medical Professional Liability Insurance Claims file, which contained all claims closed in Florida between 1975 and the first quarter of 1988. The data were reported to the Florida Department of Insurance and made available for public use. We selected only claims against physicians for analysis. We used the physician's name as well as the indemnity and associated expenses paid on each physician's claim. The physician's name was needed to match claims with data on all US physi-

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cians obtained from the American Medical Association's Physician Masterfile.⁴

To analyze claims experience, we first aligned claims with the time they occurred and other relevant factors. We constructed an incident-year file, reallocating claims from year of closure to time of occurrence. (We could not develop a file based on the year the claim was filed because year-of-filing information was not requested by the Florida Department of Insurance for claims closed before 1985.)

The year a claim closes is a poor reference date for two reasons. First, it fails to match claims experience with risk factors during years of exposure to claims. Claims often are closed several years after an incident actually occurred.⁵ Thus, a claim's closing date would provide an inappropriate match with exposure, because a physician could have left the state or retired and still have claims closing several years later. Second, incidents with the highest payments typically take the longest to close. Therefore, a physician's history based on a file of closed claims could substantially underrepresent high-payment cases for those physicians who had more recently started practice in the state. We based our analysis on data from between 1975 and 1980 because this period provided an adequate time span for analysis and gave the latest incidents 8 years in which to close. Previous research indicates that 98% of claims in Florida during that period closed within 8 years.⁶

Physicians' characteristics between 1975 and 1980 from the American Medical Association's Physician Masterfile were merged with the claims file. Only physicians who practiced in the state of Florida for at least 3 years between 1975 and 1980 were included. Using this minimum experience avoids the type of random fluctuation that might result from a single year's unusual experience. The merger produced a physician claims history file that included the number of incidents that resulted in claims for each physician for each exposure-year between 1975 and 1980, indemnity payments and other insurer defense costs per exposure-year for each physician (year for which the physician was providing at least some patient care in the state of Florida), and other selected physicians' characteristics. We dropped closed claims that did not appear to be true claims. Sometimes physicians report an incident to an insurance company purely as a precautionary measure. If the insurer did not spend any money on the case or show any other indication of effort in defense of the claim, we dropped the claim from our analysis.

We focused on three categories of physician specialty—one low risk and two high risk—as designated by the majority of insurance carriers between 1975 and 1980. The low-risk group consisted of several medical and other low-risk specialties—allergy and immunology, dermatology, internal medicine, pathology, pediatrics, psychiatry, public health, and rheumatology. We subsequently refer to this as the *medical specialty group*. One high-risk group consisted of obstetrics and gynecology and anesthesiology (hereafter called the *obstetrics-anesthesiology group*); and the second, orthopedic surgery, plastic surgery, and neurosurgery (hereafter referred to as the *surgical specialty group*).

Classification of Physicians into Four Payment Groups

We classified physicians in each specialty group into "no-payment," "low-payment," "high-payment," and "very high-payment" physicians based on claims that originated between 1975 and 1980 as follows: (1) *no payment*—physicians with no incidents between 1975 and 1980 that resulted in indemnity or associated loss expense; (2) *low payment*—physicians with one or more incidents between 1975 and 1980 and indemnity plus associated loss expense at or less than the mean for the specialty group; (3) *high payment*—physicians with one incident and indemnity plus associated loss expense greater than the specialty group mean; and (4) *very high payment*—physicians with two or more incidents and indemnity plus associated loss expense greater than the specialty group mean. This same breakdown was also done substituting median for mean values, although we do not report the median results here.

Determinants of Claims Experience

To determine factors associated with adverse vs favorable claims experience between 1975 and 1980, we performed multinomial logit analysis.⁷ This form of regression analysis is used when the dependent variable is defined in terms of several mutually exclusive alternatives. In our application, we defined three categories for each specialty: no payment, low payment, and high and very high payment collapsed into a single group. Independent variables consisted of the physician's education characteristics, practice characteristics, and sex. We estimated separate equations for each of the three specialty groups. When characteristics varied by year, we used the characteristics for the physician's last exposure-year between 1975 and 1980.

Physicians' Education Characteristics.—These were (1) year of medical school graduation—before 1938, between 1938 and 1968, and after 1968; (2) board-certification status; (3) country of medical school—developed English-speaking (including the United States and Canada), developed non-English speaking, and less developed; and (4) medical school ranking, represented by a variable distinguishing graduates of the top one third of US medical schools as ranked by the 1977 *Gourman Report*⁸ from graduates of other schools, both domestic and foreign.

Physicians' Practice Characteristics.—These were (1) number of direct patient care hours per week in three categories—40 hours per week or less, 41 to 60 hours per week, and more than 60 hours per week; (2) whether the physician engaged in research; (3) whether the physician taught; (4) solo vs nonsolo practice; and (5) primary employment of the physician—medical resident, administration, research or teaching, or direct patient care. Direct patient care was further subdivided into self-employed, government, other, or unclassified.

Other.—Location of practice was divided into six areas in Florida (1) all nonmetropolitan standard metropolitan statistical area (SMSA) counties; (2) metropolitan counties in northern Florida other than Jacksonville; (3) Jacksonville SMSA; (4) Orlando, Daytona Beach, Lakeland-Winter Haven, and Melbourne-Titusville-Palm Bay SMSAs; (5) southern central Florida SMSAs other than those previously mentioned; and (6) Miami-Hialeah, Fort Lauderdale-Pompano Beach, and West Palm Beach-Boca Raton-Delray Beach SMSAs. We also included explanatory variables to distinguish among detailed specialties within each of the three broad specialty groupings.

Other Claims-Related Analyses

Responses to Claims Experience.—For all four payment groups, we assessed whether there was a systematic relationship between claims experience with incidents between 1975 and 1980 and specialty, location, and retirement decisions. To isolate the effect of previous claims experience on such decisions, we estimated logit regressions for each type of decision with the following explanatory variables: the payment groups, year of graduation, sex, specialty, whether the physician was a medical student, and board-certification status. We also investigated whether the licensing authority in Florida, the Department of Professional Regulation, was more likely to receive complaints

Table 1.—Distributions of Payments per Exposure-Year by Specialty Group (in 1987 Dollars)

	Medical Specialties			Obstetrics-Anesthesiology			Surgical Specialties		
	Lower Boundary Value, \$	Total Payments, %	Total Physicians, %	Lower Boundary Value, \$	Total Payments, %	Total Physicians, %	Lower Boundary Value, \$	Total Payments, %	Total Physicians, %
Zero payments	0	0.0	85.2	0	0.0	65.7	0	0.0	51.8
\$1-median	1	1.5	7.3	1	1.4	17.1	1	2.1	24.0
Median-mean	1120	12.4	4.5	2010	12.0	11.0	2743	14.4	15.2
>Mean, 1 claim	8929	49.7	1.7	20514	17.4	1.7	16318	9.3	1.4
>Mean, >1 claim	8929	26.4	1.3	20514	69.2	4.5	16318	74.2	7.8
Total	...	100.0	100.0	...	100.0	100.0	...	100.0	100.0
No. of observations	3837	...	...	1302	...	...	796	...	...

about the physicians with the most adverse claims experience and what the disposition of the complaints was. Because the department had to look up records of each physician individually, we limited this latter analysis to the 166 physicians with the most adverse claims experience in the three specialty groups—the very high-payment group—and a comparison group of 166 randomly selected physicians in the same specialties who had no incidents between 1975 and 1980 that resulted in payments.

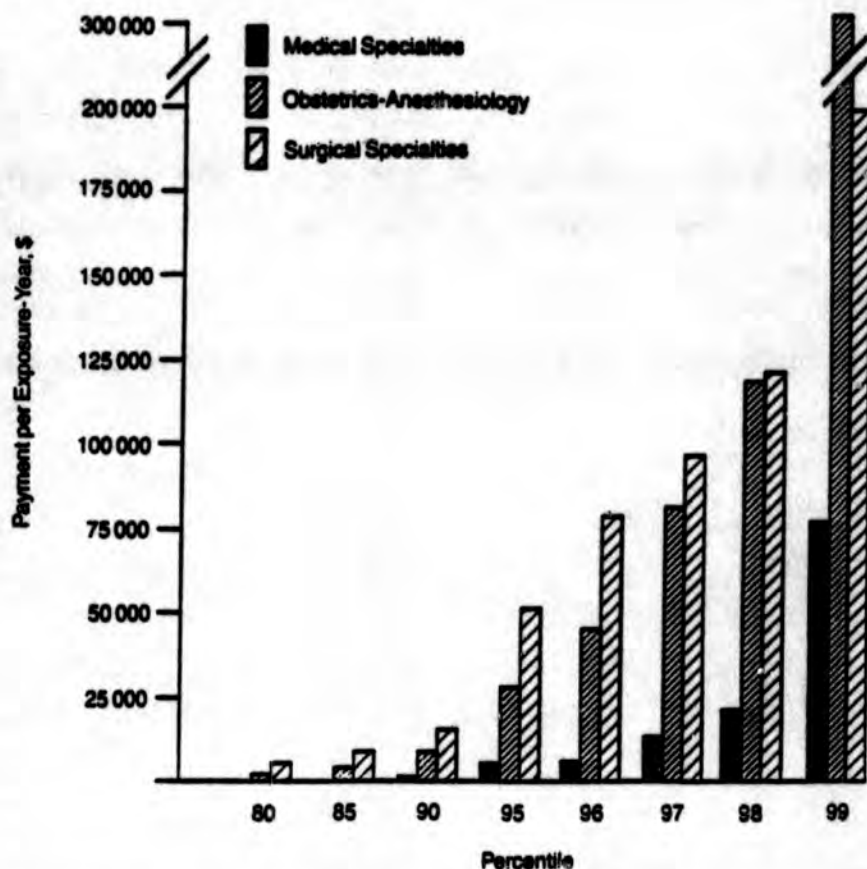
Prediction of Payments Based on Incidents From 1981 to 1983.—We compared mean payments by insurers for all four payment groups defined on the basis of incidents between 1975 and 1980 with their mean payments from incidents during 1981 to 1983. In this way, we could determine whether experience in the earlier period is predictive of experience during the later period.

RESULTS

Concentration of Payments

Having a claim was a relatively rare event for physicians in the low-risk, medical specialty group (Table 1). Eighty-five percent of such physicians had not even one incident that resulted in some payment (indemnity payment and/or associated loss expense) between 1975 and 1980. By contrast, 66% of the obstetrics-anesthesiology group and 52% of the surgical specialty group had no such incidents. Payments were often low as well; only small amounts were spent for claims against many physicians who did have claims.

In all three groups, a large share of the total payment by malpractice insurers involved a comparatively small number of physicians (Table 1). More than 85% of the payment for physicians in the medical specialty group were made on behalf of only 3% of physicians (1.7%+1.3%). Payments in the other two specialty groups were slightly less concentrated. In the obstetrics-anesthesiology group, more than 85% of payments were incurred by approximately



The payment per exposure-year: various percentiles of payment distribution.

6% of physicians. For the surgical specialty group, three fourths of the total payment was made on behalf of 7.8% of physicians.

The median annual payment on behalf of physicians with payments was low, ranging from slightly more than \$1000 for the medical group to almost \$3000 for the surgical group. Payments near or below the median were often for the cost of defense rather than for compensating claimants. Mean annual payments were considerably higher than medians, reflecting the skewed distribution of dollars toward large cases; they ranged from approximately \$9000

to \$21 000 per year. Physicians in the very high-payment group (greater than the mean and more than one claim) incurred substantial losses. Mean annual payments for the physicians in this category were \$38 000 for the medical specialties, \$109 000 for the obstetrics-anesthesiology group, and \$75 000 for the surgical specialties group (not shown).

To examine the concentration of insurance losses from another perspective, we arrayed physicians according to annual spending on their behalf (Figure). For the obstetrics-anesthesiology group, the top 1% of physicians incurred a payment per exposure year of approx-

Table 2.—Predicted Probabilities by Group*

	Medical Specialists			Obstetrics-Anesthesiology			Surgical Specialists		
	No Payment	Low Payment	High and Very High Payment	No Payment	Low Payment	High and Very High Payment	No Payment	Low Payment	High and Very High Payment
Physicians' education characteristics									
Year of medical school graduation									
Before 1938	0.867	0.029†	0.004‡	0.732	0.243	0.025	0.657	0.203	0.140
1938-1968	0.857	0.110	0.033	0.652	0.288	0.060	0.523	0.374	0.103
After 1968	0.827	0.148	0.027	0.667	0.289	0.084	0.482	0.488	0.082
Board certified									
Yes	0.848	0.124	0.028	0.611	0.314†	0.075‡	0.475	0.433†	0.092
No	0.858	0.110	0.031	0.719	0.235	0.046	0.672	0.244	0.084
Medical school country									
Developed non-English	0.828	0.134	0.037	0.705	0.243	0.052	0.288	0.629†	0.084
Less developed	0.808	0.108	0.085	0.686	0.281	0.074	0.481	0.480	0.079
Developed English	0.880	0.120	0.030	0.661	0.280	0.059	0.535	0.372	0.093
Medical school ranking									
Top one-third, Gourman	0.857	0.116	0.027	0.671	0.285	0.064	0.578	0.381	0.061‡
Other	0.851	0.119	0.030	0.662	0.238	0.060	0.483	0.408	0.111
Physicians' practice characteristics									
Non-SMSA	0.848	0.137	0.014	0.585	0.368	0.047	0.508	0.405	0.086
Northern SMSA	0.862	0.117	0.031§	0.680	0.277	0.063‡	0.516	0.382	0.099‡
Southern SMSA	0.827	0.119	0.054	0.630	0.290	0.075	0.477	0.375	0.148
Direct patient care hours									
≤40 h/wk	0.670	0.108	0.022	0.781	0.172†	0.037	0.680	0.290‡	0.060‡
41-60 h/wk	0.663	0.121	0.028	0.642	0.298	0.060	0.567	0.388	0.084†
>61 h/wk	0.642	0.121	0.037	0.607	0.330	0.063	0.438	0.423	0.141
Medical research									
No	0.880	0.120	0.030	0.661	0.278	0.061	0.516	0.388	0.086
Yes	0.861	0.111	0.038	0.640	0.297	0.063	0.512	0.388	0.120
Medical teaching									
No	0.861	0.115	0.034	0.663	0.280	0.057	0.525	0.411	0.084‡
Yes	0.863	0.121	0.028	0.648	0.284	0.067	0.503	0.373	0.124
Solo practice									
Yes	0.848	0.117	0.034	0.678	0.254	0.067	0.530	0.383	0.087†
No	0.863	0.119	0.028	0.648	0.298	0.068	0.514	0.388	0.088
Primary specialty									
Allergy/immunology	0.841	0.119	0.040	...	...	...	...	...	...
Rheumatology	0.671	0.108	0.023	...	...	...	...	...	...
Psychiatry	0.937	0.058†	0.008†	...	...	...	...	...	...
Pathology	0.655	0.088‡	0.046	...	...	...	...	...	...
Dermatology	0.625	0.135	0.040	...	...	...	...	...	...
Public health	0.915	0.085	0.000	...	...	...	...	...	...
Pediatrics	0.788	0.144	0.068†	...	...	...	...	...	...
Internal medicine	0.808	0.147	0.047	...	...	...	...	...	...
Anesthesiology	...	...	...	0.751	0.211†	0.038†	...	...	...
Obstetrics/gynecology	...	...	...	0.582	0.335	0.063	...	...	...
Neurosurgery	...	...	...	...	...	...	0.482	0.313	0.205‡
Plastic surgery	...	...	...	...	...	...	0.575	0.385	0.040‡
Orthopedic surgery	...	...	...	...	...	...	0.501	0.408	0.093
Sex									
F	0.888	0.102	0.010‡	0.687	0.280	0.013	0.677	0.323	0.000
M	0.847	0.120	0.033	0.651	0.280	0.069	0.513	0.382	0.085

*The significance levels indicate the underlying parameter estimates were statistically significant in the logit regressions. The last category under a heading was the omitted reference group (eg, after 1968 for year of graduation).

† $P \leq .01$ (two-tailed test).

‡ $P \leq .05$ (two-tailed test).

§The northern standard metropolitan statistical areas (SMSAs) taken as a group are statistically significant from the reference group ($P \leq .01$). In our regression analysis, we included separate variables for various northern SMSAs (see text). Our statistical test measures differences in two log-likelihood ratios, with and without northern SMSA variables.

imately \$300 000, nearly \$2 million for the incident period between 1975 and 1980. By contrast, for such physicians at the top 10% of the payment distribution, the mean dropped to approximately \$10 000 per year. For the surgical group, the top 1% incurred approximately \$200 000 per year. Payments for

the medical specialists were less skewed, but skewed nevertheless.

Sources of Variation in Claims Experience

The logit analysis revealed several systematic relationships between physicians' characteristics and their claims

experience. Because the logit coefficients cannot be directly interpreted, we show predicted probabilities of being in the no-, low-, and high- and very high-payment categories as particular characteristics are varied (Table 2). To examine the effect of a particular characteristic on the probabilities of assign-

Table 3.—Effects of Malpractice Experience Between 1975 and 1980 on Physicians' Practice Decisions Between 1980 and 1987

Group*	% Distribution						Total
	Active in Florida, Same Specialty†	Active in Florida, Different Specialty	Active in Other State, Same Specialty	Active in Other State, Different Specialty	Retired, Semiretired, or Non-Patient Care	Died or Disabled	
No payment (N=4622)	65.8	7.4	8.5	2.0	10.5	5.8	100.0
Low payment (N=1133)	61.2§	7.6	3.2§§	0.4§§§	4.9§§	2.7§§§	100.0
High payment (N=98)	79.6§	6.1	3.1	0.0	6.1	5.1	100.0
Very high payment (N=168)	80.3§	6.5	4.8	0.6	4.8§	3.0	100.0

*The reference group is "no payment."

†We did not estimate a separate equation for this category.

§Statistically significant difference based on difference of means tests.

§§Statistically significant corresponding results from the payment variable coefficients in the regressions.

§§§P<.01 (two-tailed test).

§§§§P<.05 (two-tailed test).

ment to each payment category, we set the other independent variables equal to their sample mean values. To conserve space, we assess only the changes in probabilities associated with key independent variables. (Full regression results are available in an unpublished appendix. See National Auxiliary Publications Service [NAPS] document 04723 for five pages of supplementary material.)

Several of the physicians' characteristics had statistically significant effects on whether a physician had no, low, or high and very high payments. Having some characteristics made a substantial difference to the payment group to which the physician belonged, but the effect of many characteristics on the probability of belonging to a particular payment group was small.

Physicians with relatively prestigious credentials had no better experience and, according to some indicators, worse experience than did physicians with less prestigious credentials. Board-certified physicians in the obstetrics-anesthesiology and surgical specialties groups, but not in the medical specialties group, were more likely to have claims filed against them than were their non-board-certified counterparts. For example, among obstetricians and anesthesiologists, being board certified increased the probability of being in the high- and very high-payment group from .05 to .08 and decreased the probability of being in the no-payment category from .72 to .61. Surgeons from the top third of medical schools were less likely to be in the high- and very high-payment group, the only statistically significant difference for this characteristic.

Physicians with degrees from less developed countries had about the same claims experience as others, including physicians with US and Canadian de-

grees. The only major difference in claims experience by country of graduation was in the surgical specialty group. With one exception (the surgical group), ranking of medical school seems unimportant.

In general, older physicians were less likely to have claims filed against them. However, year of graduation only had a statistically significant effect in the medical specialties group.

Holding other factors constant, there were no statistically significant differences between the claims experience of physicians who engaged in some research or some teaching and the experience of those not engaged in these activities. Differences between physicians in solo vs group practice were small and generally not statistically significant. Physicians in the obstetrics-anesthesiology group and surgical specialty group who were involved in more than 60 hours of direct patient care per week tended to incur more claims and more costly claims than physicians with shorter workweeks. There was no relationship between length of workweek and malpractice payments for the medical specialty group.

Particularly in view of the publicity about the malpractice problem in southern Florida and the higher premiums charged there, we expected to find geographic differences in the claims experience among Florida physicians. In fact, we found only a few systematic patterns by location within Florida given the other explanatory variables in the equations. For purposes of assessing predicted probabilities, we combined the SMSAs into two categories—northern and southern—and compared them with one non-SMSA category. The estimated marginal probabilities in Table 2 suggest surprisingly small differences between metropolitan (SMSA) and non-metropolitan areas within the state.

Female physicians in the obstetrics-anesthesiology group and the medical specialties tended to have a more favorable claims experience than their male counterparts, other factors held constant. Because of the paucity of female surgeons, statistical power is lacking, but, even for this group, being a woman raised the probability of having no incidents with claims between 1975 and 1980 from .51 to .68. Not surprisingly, we found differences by specialty in the probabilities of being associated with particular payment groups.

Change in Physicians' Specialty and Location and Retirement Decisions Between 1980 and 1987.—Physicians with paid claims and/or associated loss expense because of incidents between 1975 and 1980 were less likely to make subsequent major changes in their practices (Table 3). This was true even after adjusting for other likely determinants—year of graduation, specialty, whether the physician was a medical resident, sex, and board-certification status. The percentages shown in Table 3 are not adjusted for the effects of these covariates; taking the covariates into account does not affect our conclusion. (See appendix available from NAPS.)

The major differences among physicians in various payment categories were in the percentages of physicians who remained in Florida but changed specialty and of those who were retired, semiretired, or switched from patient to non-patient care. Virtually all of the specialty changes for obstetrician-gynecologists involved dropping obstetrics. In general, the changes for the low-, high-, and very high-payment groups were quite similar, but were quite different from changes made by the no-payment group.

Malpractice Experience and Decisions of Professional Licensure

Table 4.—Malpractice Experience and Decisions of the Professional Licensure Board

% of Department of Professional Regulation Decisions						
	Total	Cases Dismissed	Letter of Guidance	Probation	License Temporarily Suspended	License Revoked
No payment (N=106)	4.3* (n=7)	1.2 (n=2)	1.9* (n=3)	0.0	0.6 (n=1)	0.6 (n=1)
Very high payment (N=166)	8.4 (n=14)	0.6 (n=1)	4.8 (n=8)	2.4 (n=4)	0.0	0.0

*Difference between no-payment sample and very high-payment population, $P<.05$ (two-tailed test). We dropped two physicians from the very high-payment group in the process of matching specialties.

Board.—Twice as many of the very high-payment physicians (14 [8.4%]) as no-payment sample physicians (7 [4.2%]) had complaints filed against them with the Florida Department of Professional Regulation that were closed between 1980 and 1983 (Table 4). The difference in proportions is statistically significant ($P<.05$). However, the majority of the sanctions against both groups were not severe. None of the very high-payment physicians had their licenses revoked or suspended.

Ability of Claims Experience From Incidents Between 1975 and 1980 to Predict Claims Experience From Later Incidents.—Claims and payment experience from incidents between 1975 and 1980 does predict experience from incidents that occurred later (Table 5).

To assess the relationship between past and future experience, we, as before, assigned each physician to one of the four payment groups, defined on the basis of losses attributable to incidents that occurred between 1975 and 1980. For each previously identified payment group, we computed (1) the fraction of physicians with some loss attributable to incidents from 1981 to 1983, and (2) for those with some loss during this second period, the mean payment per exposure-year. The frequency distribution of payments is approximately lognormal. Since one cannot take the logarithm of 0 and the lognormal distribution is only defined for positive values, for testing purposes, we separated the distribution into these two parts.

As with incidents between 1975 and 1980, the very high-payment group had by far the highest claims frequency that arose out of incidents from 1981 to 1983. Although the high-payment group's claims frequency from 1981 to 1983 was less than the claims frequency for the low-payment group, this was also true for incidents between 1975 and 1980. All three payment groups had far higher claims frequency than the no-payment (reference) group. Similarly, while nearly half of the very high-payment physicians incurred some loss on care rendered during 1981 to 1983, only 15% of no-payment physicians incurred

Table 5.—Claims Frequency and Payment Experience Between 1975 and 1980 vs 1981 to 1983

Category Based on 1975-1980 Experience	1975-1980		1981-1983		Mean Payment per Exposure-Year for Physicians With Payment*
	Claims per Exposure-Year	Mean Payment per Exposure-Year, \$	Claims per Exposure-Year	Fraction of Physicians With Payment	
No payment (N=3873)	0.000	0.0	0.073	0.15	29815
Low payment (N=1089)	0.282	2822	0.204†	0.36†	33882
High payment (N=82)	0.183	47806	0.141†	0.38†	44275
Very high payment (N=157)	0.814	75484	0.331†	0.46†	65886†

*Test of significance based on means of logarithm of payment.

† $P<.01$ (one-tailed test).

‡ $P<.05$ (one-tailed test).

some loss. Low- and high-payment physicians fell in between. Mean payment per exposure-year for those with some loss was more than twice as high for the very high-payment as for the no-payment physicians. Considering differences among groups in the fraction with some payment, there was a sevenfold difference in payment between the very high- and the no-payment groups that arose from incidents during 1981 to 1983 ($0.46 \times \$65,886$ vs $0.15 \times \$29,815$).

COMMENT

Our results show that malpractice claims are quite frequent for physicians in the surgical specialties we examined compared with the medical specialties. Approximately half of these surgeons in Florida had at least one claim filed against them in 6 years. Claims frequency alone (although widely used in rating by insurers in other lines, such as automobile, property, and liability⁹) is a rather misleading indicator of the cost of insuring a physician for medical malpractice. In Florida, claims closed with payments of \$300,000 or more to claimants (not counting associated loss expense) accounted for approximately 68% of total indemnity payments, but only 11% of total closed claims. Moreover, these large payments were concentrated on relatively few physicians. Almost all payments for compensation and associated costs went to cover losses incurred by a handful of physicians.

Persistence of High-Expense Categorization

When we followed the experience from 1981 to 1983 for our payment groups between 1975 and 1980, we found that differences in mean payments for the various payment groups remained. This persistence suggests that, at the group level at least, future payments within specialty are predictable. If anything, our comparisons understate the differences in payments attributable to the period from 1981 to 1983 since some claims, especially larger ones, had not closed by 1983, the most recent year for which data were available at the time we conducted our analysis. It is plausible that the very high-payment physicians incurred a disproportionate share of these claims that were still open.

Claims Experience and Quality

The link between claims experience and quality is difficult to establish, and our data do not yield conclusive results on the issue. We performed the following three tests: first, we compared claims experience with physician's credentials, such as board-certification status, prestige of medical school attended, and country of medical school.

Our analysis found few relationships with these supposed indicators of quality. In the case of board certification, we found that board-certified physicians often had more adverse claims experi-

ence. We found no consistent results with regard to foreign medical school graduates, medical school ranking, or solo practice. These findings are consistent with previous analyses of foreign medical graduates' experience,^{1,2} and comparisons of group vs solo practitioners.³ Physicians with more recent degrees may be more up-to-date. We found no evidence that recent graduates had more favorable claims experience; some of our evidence suggests exactly the opposite.

Second, we considered a "market test" of whether physicians with adverse 1970s claims experience were more likely thereafter to change specialties, enter retirement or semiretirement, or leave the state. Perhaps bad physicians are forced to change by their patients, their hospitals, or their insurers. The main difference we detected was that physicians with the most favorable claims experience were more likely to leave Florida for practice in another state. They were also somewhat more likely to retire or to change from patient to non-patient care. Thus, either the physicians with adverse experience were not considered "bad" or the market enforcement mechanisms did not work in this way. Perhaps, opportunities that face those with adverse experience are limited.

Third, we applied a "regulatory test" of whether physicians with adverse claims experience were more likely to face subsequent discipline by the state licensing board. Indeed, such physicians were more likely to receive letters of guidance and probation. On the other hand, none of the physicians with the most adverse claims experience had their licenses suspended or revoked, and fewer than 10% of these physicians were disciplined in any manner. This pattern is consistent with two opposing hypotheses: perhaps physicians with adverse claims experience are not bad physicians. Bad claims experience may reflect taking on harder cases or a litigious client. Perhaps such physicians are bad, but the licensing system failed

to act. Unfortunately, the data did not permit a rigorous examination of these possibilities.

Traditionally, state medical boards have been reluctant to address physician incompetence.¹¹ In 1986, the Florida licensing board handled more complaints than any state except New York.¹² So, if anything, this board has been relatively active.

Some but not all of our findings are consistent with the view that physicians with adverse experience are competent physicians. Our results regarding board certification suggest that physicians with high payments may have provided more complex procedures. Perhaps older physicians, who have a better malpractice record on average, provide fewer technologically sophisticated and risky services. If physicians, their practice content, and their patients were homogeneous, one would expect physicians engaged in research and teaching to do poorly, given these explanations. However, holding other factors constant, we found little difference between them and other physicians. Female physicians had a better track record than male physicians. This difference seems more likely to reflect a patient-physician practice style that is less conducive to claims than to indicate that male physicians take the risky cases. If physicians, their practice content, and their patients were homogeneous, one would expect physicians who work more to have greater exposure to adverse outcomes and hence to have a worse malpractice record. We found some evidence that losses rise with an increased number of hours worked per week. Clearly, there is an important need for careful research to determine why physicians differ in claims experience.

From an insurance perspective, it is important to know that the past predicts the future. This study shows considerable variation in expected losses within the groups commonly used for underwriting purposes by medical malpractice insurers.

The Health Care Quality Improvement Act of 1988 requires that any entity that makes payment under an insurance policy or a self-insured plan must report the physician's name, the amount paid, and a description of the incident to a national data bank.¹³ Empirical evidence available up to now, including our study however, does not demonstrate that claims experience is a valid indicator of physician quality, although it does correlate with future claims. A recent report by the US Office of Technology Assessment¹⁴ suggests that malpractice information available from the data bank might be validly used for quality screening purposes by hospitals, licensing boards, and others. Data collected pursuant to the act might be useful for replicating an analysis like ours, but definitively linking physicians' malpractice experience with their quality of care will require more information, such as data regarding patient-physician relationships and practice-specific information regarding procedure and patient mix. Such information cannot be obtained from closed malpractice claims.

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See National Auxiliary Publications document 04728 for five pages of supplementary material. Order from NAPS c/o Microfilm Publications, PO Box 3513, Grand Central Station, New York, NY 10108-3513. Remit with your order, not under separate cover, in US funds only, \$7.75 for photocopies or \$4 for microfiche. Outside the United States or Canada, add postage of \$4.50 for the first 20 pages and \$1 for each 10 pages of material thereafter. The postage charge for any microfiche order is \$1.50. Institutions and organizations may order by purchase order. However, there is a billing and handling charge for this service of \$15, plus any applicable postage.

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FINAL REPORT
MEDICAL MALPRACTICE LIABILITY STUDY

SUBMITTED TO:
THE LEGISLATIVE COUNCIL
THE STATE OF MAINE

JUNE 6, 1989

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MEDICAL MALPRACTICE LIABILITY STUDY

TABLE OF CONTENTS

		PAGE NO.
SECTION I	EXECUTIVE SUMMARY	1 - 12
	Introduction	
	Malpractice Insurance	
	Access to Medical Care	
	Tort Reforms	
	Insurance Changes	
	Medical Services	
	Conclusions	
SECTION II	MEDICAL MALPRACTICE INSURANCE PROBLEM IN MAINE	13 - 19
	Price of Insurance and Malpractice Claims, Litigation, Expenses, and the Price of Insurance	
	Conclusions	
SECTION III	ACCESS TO CARE PROBLEM-MAINE	20 - 28
	Introduction	
	Physician Availability	
	Decline in Obstetrical Providers	
	Changes in Obstetrical Services	
	Services to Medicaid Patients	
	Conclusions	
SECTION IV	TORT REFORMS	29 - 47
	A. Evaluating the effect of Tort Reform Legislation	
	Introduction	
	Statutes of Limitations	
	Joint and Several Liability	
	Lawyers Contingency Fees	
	Collateral Source Payments	
	Caps on Payment Amounts	
	Screening Panels	
	Maine Screening Panels	
	Panel Use and Results	
	Conclusions	

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B. Constitutionality of Tort Reform 48 - 52

Introduction
Tort Liability
Pretrial Procedure
Limiting Damages
Support Programs
Conclusions

SECTION V RATE SETTING PRACTICES AND POLICY OPTIONS 53 - 59

How Medical Malpractice Rates are Set
Insurance System Options to Reduce or
Stabilize Rates

- Stronger Oversight by the Insurance
Bureau (Rate filings, investment income,
and closed claims)
- Minimizing Disruption
- Steps to Improve Insure Efficiency
- Merit Rating
- Removing Risk From the Insurance System

Conclusions

SECTION VI MEDICAL SERVICES REFORMS

A. Medicaid Fees 60

B. Medical Review Provisions 61 - 69

National Changes
Physician Licensure
Option For Strengthening Licensure
Hospital Response to Malpractice
-Credentialing
-Quality Assurance Activities
-Morbidity/Mortality Reviews
-Other Educational Activities
-Risk Management Plans
Professional Standards
Conclusions

ATTACHMENTS

ATTACHMENT A	PHYSICIAN SURVEY INSTRUMENT	Att. 1-2
ATTACHMENT B	PHYSICIAN SURVEY ANALYSIS	3-5
ATTACHMENT C	ATTORNEY SURVEY INSTRUMENT	6-7
ATTACHMENT D	ATTORNEY SURVEY ANALYSIS	8-13

SECTION I: EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

INTRODUCTION:

The Report of the Commission To Examine Problems of Tort Litigation and Liability Insurance in Maine (delivered to the Maine Legislature in December of 1987) concluded that there was not enough evidence from other State reforms of the 1970's to warrant additional tort reforms aimed at the liability insurance problem in Maine. As a result, while many reforms were offered few were approved by the Legislature and none brought substantial change to the tort system.

Since that report, the price of medical malpractice insurance premiums has continued to rise along with concerns about reduced access to medical care amid reports that physicians were reducing or stopping their services due to high insurance premiums. A renewed effort was undertaken to address this problem with several legislative proposals aimed at changing the tort system, setting up a patient compensation fund, expanding the membership and powers of the Board of Registration in Medicine, and subsidizing the insurance premiums of physicians in rural Maine.

In March of 1989, recognizing the seriousness of both the problem and the intended solutions, the Legislative Council contracted with the Public Health Resource Group of Portland, Maine to conduct an independent study of these issues by the end of May 1989. The aims of this study were to identify the current problems of both medical malpractice liability insurance and access to care in Maine, evaluate selected tort changes enacted

by the Legislature in 1986, and provide an assessment of policy options passed in other states which have demonstrated some measure of success in controlling premiums rates for medical malpractice insurance while assuring access to medical care.

The report that follows addresses each of these areas. In addition to a description of the insurance and access problems in Maine, it focuses on three policy areas that as a whole impact on the medical malpractice liability system: tort changes, insurance regulations, and medical system practices (in particular licensure, standards of care, hospital practice privileges, and Medicaid fee limits).

MALPRACTICE INSURANCE:

Based on the limited information available from the two major medical malpractice liability insurers conducting business in Maine, Medical Mutual Insurance Co.(MMIC) and the St. Paul Companies, premium rates for basic and specialty coverage have been rising to record proportions for Maine physicians over the last ten years. For example, between 1984 and 1988 premium rates for MMIC physicians more than doubled on average. Moreover, premium rates are erratic, going from a substantial decrease in one year to a significant increase the next. They are somewhat lower than the rates for most urban and many rural states. It is noteworthy, however, that premiums as a proportion of gross income are higher in Maine (11%) compared to the nation (6.2%).

Frequency of claims per 100 physicians insured are currently below average for the nation as a whole while claims severity is equal to the national average. Loss ratios for the State are somewhat higher than national averages indicating that premiums collected appear to cover the expected losses. These high loss ratios are due to the targeted and observed loss ratios for MMIC and possibly indicate an unusually conservative approach to reserves. This, combined with the high surpluses generated in recent years, brings into question the practice of computing expected losses and reserves, and their use of reinsurance. Forty percent of the premiums collected by MMIC goes to cover the cost of reinsurance and suggests the current reinsurance system needs review. The proportion of settlements going to legal fees to defend physicians amount to between 40 and 50% of the dollars paid out.

From the data, it is apparent that the frequency, severity, and losses as a percentage of income do not indicate that the liability insurance problem in Maine is out of control. It does suggest that more efficient methods of estimating reserves, reinsuring, and obtaining legal services could reduce the price of premiums for policy holders while continuing to provide high quality coverage. These are areas where policy changes could achieve savings to the insurance industry and ultimately the rate payers.

ACCESS TO MEDICAL CARE:

Based on secondary data and a physician survey conducted as part of this study, Maine has experienced and will continue to experience a decline of approximately 4% per year in physicians who provide obstetrical services. This decline is occurring primarily among Family Physicians and mostly in urban areas of the state. In the future, however, rural areas are expected to experience the same trend. The principal factors reported by physicians as responsible for this decline are the price of medical malpractice insurance and fear of a malpractice suit. Regardless of the size of the pool of physicians practicing obstetrics, the number providing services to Medicaid recipients is not declining any faster than the number providing services to other patients. However, the volume of Medicaid patients being treated by Obstetricians and all other medical doctors except Family Physicians is declining.

While the number of physicians available to provide obstetrical care is declining, the extent to which access to obstetrical services has been adversely affected is not known. While a decline in access in rural areas due to malpractice insurance may have occurred prior to this study and may be observed again if rates continue to climb, it is not apparent from the data available to the study.

In urban areas, the size of the obstetrical physician population is declining, but obstetrical services are available at hospital-based clinics and in family practice residencies. If

insurance rates continue to climb and Medicaid fees remain below market prices, more Family Physicians are likely to drop obstetrics leaving a serious access problem for Medicaid recipients. Family Physicians are the only group of physicians who have increased their volume of Medicaid patients over the past three years.

TORT REFORMS:

Changes in the tort system have been a major focus of efforts to reduce claims frequency, improve claims disposition efficiency, reduce claims processing costs, lower premium rates, and improve access to medical care. It is generally assumed that the price of insurance should decrease with any reduction in claims and that physicians will be more willing to practice with lower insurance premiums. The results of completed evaluations of tort reforms do not demonstrate convincing evidence to confirm these assumptions.

It is not yet clear whether tort reforms actually have succeeded in reducing the price of insurance or the frequency or severity of claims, or whether they will succeed in reducing or stabilizing premiums or claims in the future. It is also not known whether these parameters would have increased more than they have in the absence of the reforms. Moreover, since a significant number of the reforms in other states have been ruled unconstitutional, have not been put into effect, have been repealed, or have been allowed to expire, they may not have been operational long enough to have a clearly measurable effect.

It is difficult to isolate the effect of any single reform. Many other factors, such as the distribution of illness, physicians' capabilities, biotechnology, peer review and risk management programs, litigation strategy, public attitudes towards risk and compensation, and insurance rate-making procedures, all may contribute to the number of claims filed, their outcome, and the price of insurance. It is far easier to estimate the effect of certain reforms on the frequency or severity of claims than on the price of insurance or the willingness of physicians to practice certain high risk specialties. Caps on awards have reasonable potential to limit the dollar volume of high-stakes claims (as well as introduce some consistency into estimates of damages). Limits on contingency fees may increase the proportion of compensation actually retained by injured patients, but may leave patients with meritorious claims for small amounts without representation.

The effect of screening panels is perhaps the most difficult to predict, largely because their effectiveness depends on procedural details such as the permitted use of their decisions in court and the panel's authority to expedite the process. They may help to identify meritorious claims and encourage early settlement, but they may also increase the time and expense of resolving claims and discourage attorneys from accepting meritorious claims which are likely to result in small settlements.

The results of Maine's prelitigation screening panels, operational for over two years, are still uncertain. Information from court officials indicate that the panels have been useful in reducing the number of potential defendants named in a suit. Defendant attorneys like them perhaps because they have been largely successful in cases presented to panels thus far. Plaintiff attorneys would prefer to avoid them and go directly to court. Both agree that it is too soon to make a judgment on the goals stated in the statute that created them. At the same time, defendant attorney costs show they are competitive with similar costs of voluntary settlements and are well below the costs of a trial.

There is little doubt that the tort system can be an inefficient and expensive system of dispute resolution. Other systems have been suggested to replace it entirely, but no state has enacted or implemented such a system to date. The Vermont Legislature is currently considering a version of the American Medical Association's model fault-based administrative system. It will be years before any evidence is available on the impact of this approach.

Any effort to improve the efficiency of the tort system and reduce its cost should be welcome. Virtually all such measures, however, operate by shifting the probability of success somewhat from one party to the other. Efforts to reduce costs by limiting the number of claims that are actionable, the grounds

for liability, or the amount of damages recoverable all increase the probability that some injured persons will go uncompensated. Efforts to increase the mechanisms to better identify meritorious claims may increase the complexity, time, and expense of decision making. Thus, it is necessary to evaluate reforms in light of all the goals they may affect.

Changes in the tort system must also be consistent with constitutional requirements particularly rights of due process and equal protection of the law, access to the judicial system, and trial by jury. Most procedural changes in litigation suggested by the current legislative proposals are likely to be upheld if challenged, based on standards of the Maine Constitution. Placing a maximum limit on recoverable damages is the most constitutionally suspect of all current tort reform proposals.

At the same time, it is clear that changes made specifically for medical malpractice cases are most likely to be successfully challenged for exclusivity since the reasons for their adoption generally apply to other areas of tort law notably product liability. Medical malpractice cases concern only about 15% of all tort actions. Thus, before altering tort law, the Legislature should have good reason to believe that the changes proposed will, in fact, achieve the desired goals and should be careful to avoid drawing unjustifiable distinctions among tort claimants and tort defendants. The right to trial by jury, guaranteed to plaintiffs and defendants in tort cases, is deeply rooted in the

Constitution of Maine, and policies aimed at limiting the right, while probably constitutional, will have broad ramifications.

INSURANCE CHANGES:

Significant savings are possible in medical malpractice insurance even without reducing the number of claims brought or causing financial injury to insurers. Obtaining these savings will require more vigorous public (regulatory) oversight of the medical malpractice insurance industry in Maine. Specifically, a data base of Maine's claims, settlements, and insurance practices is essential if the insurance Superintendent is to have the data necessary to carry out oversight functions and if the Legislature and general public are to have the information necessary to evaluate both the Superintendent's and the industry's actions.

A principal role of the government in a regulated industry such as insurance is to get insurers to manage their business as efficiently as possible and provide a quality product to consumers at a reasonable price and with a fair return on investment. Inefficiency in malpractice insurance comes from a number of sources. To guard against the insurance industry's practice of understating investment income, the Superintendent of Insurance should be authorized and directed to promulgate an investment income model. Insurers have little incentive to control their expenses as long as rate increases can be passed on to policy holders. Expenses incurred by the leading two medical malpractice insurers make up a significant proportion of premiums. To ensure efficiency, the Legislature might require

that the Superintendent of Insurance mandate that insurers demonstrate an effective cost control program.

To minimize disruption in the marketplace due to unstable fluctuations in the price of insurance, the Legislature could authorize the Insurance Superintendent to spread the effect of substantial rate changes over a three-year period. To spread the risk of claims payments and resulting increases in premiums to those policy holders responsible, the Legislature might consider implementing a merit rating system, a system of deductibles, or both.

Finally, the heavy reliance by MMIC on reinsurance promotes inefficiencies because reinsurance is a costly product and reinsurers are not subject to effective State regulation. Significant savings could be achieved if the Superintendent of Insurance were directed by the Legislature to set standards for reinsurance limits which, to the extent feasible, reduce dependency on outside reinsurance. Secondly, the Legislature should consider a patient compensation fund such as that suggested in L. D. 762.

The insurance industry, like the medical care system, is based on trust that consumers give to providers. The integrity of the system demands that the income of policy holders be fully accountable and used as efficiently as possible. Actions to assure this outcome will have as much impact on the malpractice

problem as reduced rates.

MEDICAL SERVICES:

Patricia Danzon has conducted extensive research on effects of the 1976 tort reforms on frequency and severity of claims and other outcomes. When claims began to decline in the late 1970's following the medical malpractice "crisis" of that period, it was her opinion and that of other experts that the reforms passed by many states had less to do with the decline than the response by the medical profession to improving peer review and other efforts aimed at preventing the number of malpractice incidents.

Activities in several areas have been taking place in Maine and the Nation which show promise of improving quality of health care and reducing incidents of malpractice. There are others the Maine Legislature might consider. One 1986 reform charged the Board of Registration in Medicine with investigating any physician who had three or more malpractice claims over a ten-year period which resulted in a monetary settlement. This policy led to investigation of only seven physicians over a ten-year period. The Legislature could create an ombudsman capability within the Board which would serve to defuse potential complaints prior to their being elevated to a claim. Additional investigatory capability for the Board could be initiated, as called for in L.D. 1407, to follow up on complaints that come through an ombudsman office. Requiring the Board to collect additional information on the voluntary or involuntary loss of hospital privileges in or outside of Maine is also warranted before

licensing physicians or before hospitals grant privileges.

In addition to improved licensure standards, care standards have been proposed by JCAHO, selected hospitals in Maine, and MMIC as a means of improving quality and reducing the likelihood of malpractice suits. While physicians on both sides of this issue argue the merits of supposed "cook-book" medicine, this approach continues to develop as a potentially viable method of accomplishing these ends. The Legislature might consider endorsement of this approach as well as educational activities promulgated by the Maine Medical Assessment Program.

CONCLUSIONS:

There are many approaches to controlling rising and unstable medical malpractice liability insurance premiums in Maine and their effect on access to care. These include changes in the tort system, the insurance regulatory system, and the medical care delivery system. To target one while ignoring the others will create disequilibrium and lead to policies likely to fall far short of the mark. Each has some merit and some drawbacks. Each needs to be addressed with a realistic understanding of what will be gained and what will be lost. It was no surprise to many experts that the St. Paul Companies decided to lower their premiums due in part to a reduction in expected reserve demand for outstanding claims. Considering past history, however, the medical malpractice issue is likely to revisit Maine in a very few years. The severity of the problem at that time will depend on how comprehensive an approach the Legislature takes now.

MEDICAL MALPRACTICE INSURANCE IN MAINE

THE PRICE OF MEDICAL MALPRACTICE INSURANCE:

This section will describe, with available information, key dimensions of the malpractice insurance problem in Maine including the price of liability premiums, the frequency and severity of claims, and settlements brought in Maine during the last four years. There are two insurance firms which sell over 90% of the medical malpractice policies in Maine. They are St. Paul Insurance Companies of St. Paul, Minnesota and Medical Mutual Insurance Company of Maine (MMIC). In 1988, Medical Mutual insured over 1172 Maine physicians and one of Maine 36 nongovernmental hospitals. In 1988, St. Paul's insured almost all of the remaining hospitals and 665 physicians. There are approximately 1800 licensed and active physicians in Maine.

Recent physician sponsored efforts to address the medical malpractice liability system are primarily responses to the price of medical liability insurance, particularly price instability, as well as threat of malpractice suits. Both have motivated physician groups to seek tort changes, challenge insurance rate increases, alter their medical practice patterns, increase peer and quality reviews, and develop alternative malpractice dispute resolution systems. As the discussion of medical care access will show, it is price coupled with the fear of being sued that has motivated physicians to reduce or stop obstetrical services.

In nearly every one of the last ten years, the price of medical liability insurance nationwide has outstripped rises in overall inflation as well as inflation in the medical marketplace. For example, nationwide medical malpractice liability premiums were 75% higher in 1986 than 1983 while the Consumer Price Index rose 10.1% during this period and the Medical Care Index rose 21.3% (Rosenbach & Stone, 1988). Yet, in some years the price has actually gone down demonstrating the price volatility of this product.

Medical malpractice liability premiums in Maine have experienced similar increases (and decreases). This has occurred despite the fact that Medical Mutual Insurance Company of Maine, a physician owned insurance company organized in Maine in the latter 1970's, now controls two thirds of the physician market for liability insurance. The average premium for liability insurance in 1984 for MMIC physicians was \$6,447. In 1988, the average premium was \$13,978--a 117% increase. Some of this increase is due to increased coverage limits, however, much is due to other factors, notably, increased claims, claims severity, reinsurance costs and the cost of conducting business. Data in Table 1 is indicative of the rising and unstable price of this product in Maine during the last ten years.

At the same time, it should be noted that the average price of a claims made insurance policy in Maine (a claims made policy insures a physician only for the year in which it is purchased) is still lower than most urban, large states and many rural

states. As of July, 1988, the price in Maine for a class 4 doctor/mature claims made policy at \$1-3 million coverage limits from St. Paul's was \$16,968. In California, the price for the same policy was \$39,281; in Michigan \$29,753; in West Virginia \$27,218; in New Jersey \$27,179; and, in Arkansas \$18,916. Regionally, Vermont's rate (\$15,704) was slightly lower than Maine's while Connecticut's (\$19,199) was somewhat higher.

TABLE 1
LIABILITY PREMIUM RATE INCREASES

Medical Mutual of Maine Increase/(Decrease)	St. Paul's Increase/(Decrease)
1979 (20%)	Reduction of 25% for year 1 insured; Increase of 16% for year 5 insured; Increases from 0 to 16% for years 2, 3, and 4.
1980 0%	0%
1981 20%	50%
1982 15%	20%
1983 21.3%	Increase in rates, changes in classifications.
1984 14.4%	20%
1985 30%	30%
1986 24.4%	22%
1987 16%	31%
1988 9.2%	11%
1989 No filing yet	(22%)

Data Source: Medical Mutual of Maine & The St. Paul Companies

Price as a function of physician income is perhaps a more equitable way to compare premium rates since both the price of insurance and physician incomes vary widely across specialties, states, and regions. Nationwide, malpractice premiums were 6.2% of physicians' gross practice income in 1986. The percentage was 4.0% in 1983, an increase of 57%. (Rosenbach & Stone, 1988) The survey of Maine physicians conducted as part of this study, indicates that the current (1989) average malpractice premium payment for Maine physicians who paid their own premiums was 11% of their 1988 gross practice income. For Family Physicians as a

SECTION II: MEDICAL MALPRACTICE INSURANCE PROBLEM IN MAINE

specialty, it was 5.7%; for specialists in obstetrics and gynecology, it was 22%; and for Doctors of Osteopathy it was 11%.

CLAIMS, LITIGATION EXPENSES AND THE PRICE OF INSURANCE:

A number of factors affect the price of medical liability insurance coverage, and it is not within the scope of this study to analyze them for Maine. The major factors thought to influence the price of insurance include the frequency and severity of claims, return on investment, the cost of conducting business, insurer loss to premiums ratios, urbanization, access to attorneys, rates of iatronic injuries, and the regulatory system. There is a presumed relationship between the frequency and severity of claims, the price of insurance, and access to medical care.

The product of claims frequency times severity along with incurred losses and expenses (transaction costs) all figure into the price insurance companies charge for their products. Reduction in these are expected to reduce the price of medical malpractice premiums. Insurance rates for Maine are currently calculated primarily using nationwide claims and severity data. However, it is important to compare Maine's rates of claims frequency and severity experience to national data to determine the status of the insurance problem in Maine. TABLE 2 compares these figures.

For the period, frequency of claims (the number of claims divided by the number of insured in any one year) were higher in Maine compared to countrywide data (the 42 states in which The St. Paul Companies sells medical malpractice insurance). The trend in recent years is lower than the national. Severity of claims (the amount of all past and expected claims settlements including expenses divided by the number of claims) in Maine has been inconsistent compared to countrywide severity data. In earlier years, it was lower; in the last two years, it was higher. Maine's average for the past five years is about equal to the rest of the country. However, it is increasing both for Maine and the country.

These data suggest that frequency is lower in Maine but severity may be increasing at a more rapid pace than the rest of the country. The Maine experience of the two insurers are very different and raise some question about the allocation of reserves to cover expected losses and expenses. This is demonstrated by the loss ratios experience by the two insurers.

A loss ratio is the proportion of the premium dollars that go to pay for claims in any one year. It includes both the amount of money actually paid out in settlements and expenses and the amount set aside for claims yet to be paid. A loss ratio is derived by dividing the sum of total losses (paid and reserved) by the amount of earned premium. Insurance companies gauge their premiums on a target loss ratio so as to produce enough funds, which, in addition to investment income, permit them to cover their losses and expenses in order to earn a profit or surplus.

Table 2

Medical Malpractice Liability Study
Maine/Countrywide Claims Frequency & Severity

Year	Number of Insured	Claims	Claims per 100 Insureds	Incurred Loss & Expense	Severity*
1984	1703	275	16.15	\$5,144,585	\$18,708
1985	1766	270	15.29	\$6,161,693	\$22,821
1986	1809	225	12.44	\$7,715,217	\$34,290
1987	1799	200	11.12	\$9,054,750	\$45,274
1988	1837	199	10.83	\$11,296,318	\$56,765
Totals/Ave.	8914	1169	13.11	\$39,372,563	\$33,681

	Countrywide Frequency	Countrywide Severity
1984	111	\$25,091
1985	111	\$28,962
1986	121	\$34,150
1987	141	\$37,019
1988	121	\$39,298
Total/Ave.	121	\$32,904

Data Source- St. Paul; MedMutual, Exhibit C-1w from St. Paul
* Severity is Total Incurred L&E/Claims. Loss limit is capped at \$200,000 for St. Paul data (Maine and Countrywide)

For example, St. Paul's targeted loss ratio is 75%. For Medical Mutual the target loss ratio is approximately, 105%. Nationwide, the average loss ratio is between 70-80%.

Table 3 presents Maine loss ratio data for the period 1984-88. The overall loss ratio for the period is 93%, above both the target ratio for St. Paul and the national average and below that of Medical Mutual. Table 4 provides the same information only for the St. Paul Companies. Their loss ratio, while fluctuating, has been decreasing over the past four years to where the average is at their targeted amount. The fluctuations in the year-to-year rates express the difficulty of estimating annual premiums rates.

MMIC loss ratios, however, have increased steadily over the past five years from 89.4 in 1984 to 100.14 in 1988 with a five year average of 100.06. It is beyond the scope of this study to examine why the loss ratios of MMIC are that high. We suspect it is due in part to increases in the amount of reserves set aside to pay for claims. In 1985, there were 368 open claims at MMIC (claims made, but not settled). The average reserve set aside for these claims was \$40,558. In 1988, there were 233 open claims but the amount of reserves for these claims amounted to \$85,088 per claim. Thus, claims are decreasing while reserves are increasing.

One way of looking at the cost of claims to insurance companies is to analyze payments for claims settled in any one year regardless of the incident year. This also can indicate if there is an upward trend in monetary awards from both the courts and insurance company settlements. A table of this data was included in the Draft Report for the three year period 1986-88. This information came from the Maine Bureau of Insurance and indicated there were no trends in the proportion of cases settled with a payment during this period (it was 19% for each of the last three years) nor in the amount of total losses. An upward trend was suggested in the average paid loss and the average paid loss expense (legal fees and expert witness fees). However, following a review of this data with insurers and the Bureau indicated that there were substantial errors with it so it could not be used. Data such as this is needed for an understanding of this problem.

CONCLUSIONS:

This Section has presented information on the growth of insurance premiums and insurance factors that are responsible in part for this growth. The cost of insurance to Maine physicians is less than many other states but accounts for a higher percentage of their income, on average. While the frequency and severity of claims in Maine does not significantly differ from the rest of the country, loss ratios are higher than expected. This is due to the high loss ratios experienced by MMIC and suggests that their reserving practices may be overly conservative. However, it will take further study to resolve this issue. Based on the data presented, the liability insurance problem in Maine does not appear out of control.

TABLE 3

Medical Malpractice Liability Insurance
Loss Ratio (Maine)
(St. Paul; MedMutual Combined)

Year	Earned Premiums	Claims	Incurred Loss & Loss Expense	Loss ratio
1984	\$5,373,117	275	\$5,144,585	95.75
1985	\$6,866,157	270	\$6,161,693	89.74
1986	\$8,201,852	225	\$7,715,217	94.07
1987	\$9,806,186	200	\$9,054,750	92.34
1988	\$11,918,849	199	\$11,296,318	94.78
Totals	\$42,166,161	1169	\$39,372,563	93.37

Data Source- The St. Paul Companies; Med Mutual of Maine

Table 4

Maine Premiums, Losses and Loss Ratio
The St. Paul Companies
(Limited to first \$200,000)

Year	Earned Premiums	Claims	Incurred Loss & Loss Expense	Loss Ratio
1983	\$1,593,733	83	\$1,423,198	89.30
1984	\$2,037,816	115	\$2,162,484	106.12
1985	\$2,831,642	93	\$2,608,644	92.12
1986	\$3,451,575	77	\$3,272,820	94.82
1987	\$3,592,896	61	\$1,398,976	37.88
1988*	\$2,267,045	62	\$1,426,317	62.92
Totals	\$18,141,752	491	\$13,718,756	75.62

Data Source- St. Paul rate filings, Exhibits 2A & 2B

* One-half year of data

SECTION III: ACCESS TO CARE PROBLEM IN MAINE

ACCESS TO CARE PROBLEM IN MAINE

INTRODUCTION:

The problem of access to medical services is complex. Lack of health insurance, transportation, knowledge of services, and availability of providers all affect access to medical care. A primary purpose of state legislative responses to the medical malpractice liability insurance issue has been to ensure consumer access to medical services.

Legislators are concerned that if insurance rates for providers continue to rise, the number of providers available to all or certain classes of patients will decline, thus intensifying the present access problem that has resulted in part by the erosion of health insurance in the 1980's. The medical malpractice liability crisis of the 1970's was primarily a crisis in availability of liability insurance- at least in Maine. The present "crisis" is one of insurance affordability. The effect on access is the same. If medical practitioners cannot afford to buy malpractice coverage for all or part of the services they provide, fewer practitioners will be available to provide those services, and access will decline.

This is of particular concern in rural areas where there are fewer providers per capita. In the published literature, in testimony before governmental bodies, and in press reports, it has been consistently argued that the price malpractice insurance is having a profound effect on the availability of medical care, particularly obstetrical care, and particularly in rural areas. However, while there is some evidence of reduced availability, there is no clear evidence of its effect on access or medical outcomes.

Physician participation rates in the Medicaid Program have been declining in this country in both urban and rural settings. A study published in 1984 designed to determine the factors responsible for low participation rates found that states with higher Medicaid fees and less administrative requirements red tape had higher participation rates (Mitchell and Schurman, 1984). For obstetrical services, however, the professional liability problem may be a more perverse and difficult problem than Medicaid fees in reducing participation. In Maine and the nation, obstetricians have the highest average annual incidence of claims, (Adams and Zuckerman, 1984; MMIC, St. Paul Companies data, 1989). Since Medicaid women tend to be at higher risk for a poor birth outcome, higher fees alone may have little affect on participation rates for this specialty.

There is evidence both from Maine and other states that high risk women do not have equal access to prenatal care specialists (PNC) (Onion and Mockapetris, 1988; Rosenblatt and Detering, 1988; USM,

1984). In a recent study of Maine hospital discharge data for the 1982-84 period, Onion and Mockapetris found that women at high risk for a poor birth outcome were less likely to have access to an Obstetrician or board certified Family Physician. Moreover this occurred more often in urban than rural areas of Maine.

In testimony before the U.S. House Subcommittee on Human Resources and Intergovernmental Relations, Assistant DHHS Secretary Robert Helms stated that high risk women are less likely to obtain early prenatal care despite substantial Federal and state funding (Helms; 1987). The incidence of both late prenatal care and no prenatal care has actually increased over the past few years. A sample survey of Maine women who delivered live infants from February 1 to August 1, 1983 found that Medicaid mothers were less likely to receive adequate PNC than privately insured women. From these and other data, it appears that women most in need of high quality prenatal care and those who have most to gain from the services of specialists have more difficulty gaining access to these services.

In addition to health insurance, there are a number of patient and medical care system barriers which limit access to prenatal care (ANA; 1987). Two major barriers are rural location and poverty. Rural areas are more likely to lack adequate care systems, (social and income support services, providers, and transportation systems). Moreover, transportation is the most significant barrier to women seeking PNC in Maine (USM, 1984), and this factor is almost three times greater among Medicaid women.

A 1988 study of physicians in Washington state found that changes in the practice of obstetrical care has been most evident among Family Physicians the most. Half of those surveyed either discontinued or reduced the volume of their obstetrical practices (Rosenblatt and Detering, 1988). Malpractice concerns were the principal reasons given for those changes with increased premiums and fear of suit the most prominent. These same factors were most likely to influence changes in obstetrical care among Family Physicians nationally, based on a recent study by Kruse et al. (1989).

At the same time, reductions in availability of obstetrical care providers need not result in care being delivered by less qualified physicians. For example, the Washington state study found that those Family Physicians who continued to practice obstetrics were more likely to be young, residency trained, board certified, and working in a more rural county than Family Physicians who left obstetrics (Rosenblatt and Detering, 1988).

PHYSICIAN AVAILABILITY IN MAINE:

Has Maine has also experienced a decline in family physicians who practice obstetrics? Data from surveys conducted in 1984 and in 1986 by the Maine Chapter of the American Academy of Family Physicians suggest there has been a 23% reduction in the proportion of Family Physicians delivering babies, from 62.5% in

1984 to 48% in 1986.

In order to obtain more complete information in Maine on the availability of medical care providers and other potential access problems that may result from rising medical malpractice liability insurance premiums, a scientific survey of physicians was conducted as part of this study. The primary purpose of the survey was to determine the extent to which physicians were reducing or stopping the practice of medicine and whether malpractice liability insurance premiums and/or fear of malpractice suits were factors in these decisions. There were, however, other reasons this survey was conducted. The Legislature wanted to know how Medicaid recipients, as a class of patients, were being affected by the liability insurance problem. They also wanted information about physician involvement in malpractice suits and trends in the price of liability insurance compared to physician income.

The scope of the survey was restricted to the availability of obstetrical services in Maine. This decision was based on many considerations. Obstetrics is considered a marker for availability of other medical services. Reductions in obstetrical providers may lead to reductions in prenatal care for pregnant women which has clear implications for the incidence of poor prenatal outcomes. Furthermore, national and state-level research conducted elsewhere suggests that the medical malpractice crisis has most significantly affected obstetrical services.

A sample of 621 physicians was selected to receive the survey, a copy of which can be found as ATTACHMENT A. Physicians in the sample included all providers who, in the 1988 DHS Physician Manpower Resource Inventory, listed their primary specialty as Obstetrics/Gynecology; Family Practice; or who indicated their secondary specialty as obstetrics regardless of their primary specialty; or were Doctors of Osteopathy. Although it is known from other data that there were approximately 225 physicians who delivered babies in Maine last year, the sample included all physicians who were trained to provide obstetrical services or who claimed they were providing them in 1988. This was done to find out who left the practice and why.

The survey was developed using a number of questions from similar national and state surveys and a number of questions developed specifically for this project. Leaders of each provider group surveyed (Obstetricians, Family Physicians and Osteopathic Physicians) provided us with constructive comments on the contents and wording of survey questions. These same leaders endorsed the survey and requested completion of the survey in the letter that accompanied its mailing.

Of the 621 surveys sent out, as of May 24, 1989, 386 have been returned as valid surveys, while another 37 have been returned by the post office as undeliverable or returned with notification that the person has retired from the practice of medicine or is deceased. Thus the response rate as of that date

was 66%. (An additional 40 responses have been received since.) An analysis of respondents and nonrespondents was conducted on the first 279 responses. This analysis is found in the appended as ATTACHMENT B. The results indicate very slight differences between respondents and nonrespondents on age, sex, urban/rural residence, specialty and other factors.

DECLINE IN OBSTETRICAL PROVIDERS:

Overall fourteen percent of those surveyed indicated that they had stopped practicing obstetrics. Between 1987 and 1989 physicians have left the practice of obstetrics at the rate of approximately 4% per year. Those who have stopped practicing obstetrics in this time period are overwhelmingly Family Physicians and located primarily in urban, rather than rural areas of Maine. Those physicians who have reduced or stopped practicing obstetrics have done so primarily as a result of rising malpractice insurance premiums and the fear of malpractice suits.

Overall, 42% of those physicians surveyed indicated they were practicing obstetrics in 1987. In 1988, this declined to 39% and in 1989 to 34%. This represents a 19% decrease over the 3 year period. The rate of decline among Family Physicians as a specialty for this period was 31%. Family Physicians represents 82% of all physicians who stopped practicing obstetrics during this period. See Table 1.

The physicians who stopped practicing obstetrics between 1987 and 1988 are young (average age 39) and averaged 30 deliveries a year. The average age of physicians who continued practicing obstetrics in 1988 was 43 and they averaged 72 deliveries a year. The average age and annual deliveries for Family Physicians who continued obstetrics in 1988 was 39 and 35 respectively.

There was a 26% decline during this period among physicians who had been practicing obstetrics in one of Maine's three Standard Metropolitan Statistical Areas (SMSA), Portland, Lewiston-Auburn, and Bangor. Rural non-SMSA's saw a 17% decline during this period. At the same time the proportion of physicians practicing obstetrics in rural areas of Maine was higher than those practicing in an SMSA.

Can Maine expect to experience a continued decline in the number of physicians providing obstetrical services. Based on the response to a question as to whether physicians planned to drop obstetrics in 1990 and 1991, the decline will continue but at a slower rate (3% in 1990 and 1% in 1991). Unlike the current trend, most of those who plan to drop obstetrics in 1990 are rural-based physicians rather than urban-based. However, a large proportion (27%) of those currently providing obstetrical services are not sure yet about their plans for continuing these services.

TABLE 1

MEDICAL MALPRACTICE LIABILITY STUDY

Survey of Maine Physicians - 1989

QUESTION 3 (a,b,c)	Type of Practice								Total	
	Family Practice		OB/GYN		Other MD		DO			
Births - 1987										
None	102	55%	15	27%	39	80%	50	78%	206	58%
1 - 49	60	32%			9	18%	8	13%	77	22%
50 - 149	25	13%	16	29%			6	9%	47	13%
150 or more			24	44%	1	2%			25	7%
Total	187	100%	55	100%	49	100%	64	100%	355	100%
Births - 1988										
None	116	62%	12	22%	39	80%	50	78%	217	61%
1 - 49	58	31%	1	2%	9	18%	10	16%	78	22%
50 - 149	14	7%	18	33%	1	2%	3	5%	36	10%
150 or more			24	44%			1	2%	25	7%
Total	188	100%	55	100%	49	100%	64	100%	356	100%
Births - 1989										
None	130	69%	13	24%	41	84%	52	81%	236	66%
1 - 49	44	23%	2	4%	7	14%	8	13%	61	17%
50 - 149	13	7%	14	25%	1	2%	2	3%	30	8%
150 or more	1	1%	26	47%			2	3%	29	8%
Total	188	100%	55	100%	49	100%	64	100%	356	100%

Question 3: Please estimate how many deliveries you personally attended in : 1987 1988 Estimated total for 1989.

CHANGES IN OBSTETRICAL SERVICES:

Physicians were also asked if they had made any changes in their obstetrical practices since January of 1987. Among those who had changed, the two biggest changes were reducing or stopping obstetrical services care to Medicaid patients (34%) and high risk patients (32%). This was followed by reducing or stopping care for the uninsured (27%), and limiting the number of obstetrical patients accepted (19%). Among the specialties, Obstetricians were more likely to have reduced their care to Medicaid patients (66%) followed by Doctors of Osteopathy (50%), and Family Physicians (25%). In urban areas 41% of the physicians reported reducing or stopping services compared to 29% of the rural physicians.

Those who had reduced or stopped their obstetrical practice were then asked to indicate the most important reasons why. Of those who responded (N=178) 68 or 38% indicated the most important reason was the cost of malpractice insurance, 42 or 24% listed the most important reason as concern over a malpractice suit and 26 or 15% listed the inconvenience of obstetrics. It is noteworthy that only 17 or 10% listed Medicaid fee limits as the most important reason for reducing or stopping obstetrical care. These results did not vary substantially by specialty or rural/urban location.

SERVICES TO MEDICAID PATIENTS:

The number of physicians who practice obstetrics in Maine has declined over the last few years based on these data. However, women on Medicaid and in need of obstetrical services do not appear to have been affected to a greater extent than women with or without private insurance. The proportion of physicians who continue to treat Medicaid obstetrical patients has remained somewhat constant declining by only three percentage points over the last three years—from 74% in 1987 to 71% in 1989. This reduction is principally due to Obstetricians and Osteopathic Physicians stopping services to Medicaid patients. Among the Family Physicians who continue to provide obstetrical services, there has been an increase in participation in the Medicaid Program.

There has been some decline in the volume of Medicaid patients which make up a physicians obstetrical practice. This has occurred among Obstetricians and Osteopathic physicians but not among Family Physicians or other physicians surveyed although the number of these physicians answering this question was small. See Table 2. When asked about practice policy regarding the limitation of care to Medicaid obstetrical patients, 16% of the Family Physicians limit the number of Medicaid patients in their practice. Seventy-one percent of the Obstetricians and all of the Doctors of Osteopathy who treat Medicaid patients have a limit on the number of these patients in their practice.

TABLE 2

MEDICAL MALPRACTICE LIABILITY STUDY

Survey of Maine Physicians - 1989

QUESTION 6 (a,b,c)	Speciality								Total	
	Family Practice		OB/GYN		Other MD		DO			
% Medicaid Babies 1987										
Zero	14	22%	11	27%	3	38%	5	33%	33	26%
1 to 25	15	24%	21	51%	2	25%	7	47%	45	35%
26 to 50	23	37%	8	20%	1	13%	3	20%	35	28%
51 plus	11	17%	1	2%	2	25%			14	11%
Total	63	100%	41	100%	8	100%	15	100%	127	100%
% Medicaid babies 1988										
Zero	14	22%	11	27%	3	38%	6	40%	34	27%
1 to 25	16	25%	25	61%	2	25%	5	33%	48	38%
26 to 50	22	35%	4	10%	1	13%	4	27%	31	24%
51 plus	11	17%	1	2%	2	25%			14	11%
Total	63	100%	41	100%	8	100%	15	100%	127	100%
Expected % Medicaid Babies 1989										
Zero	15	24%	13	32%	3	43%	6	40%	37	29%
1 to 25	14	22%	23	56%	1	14%	7	47%	45	36%
26 to 50	23	37%	4	10%	1	14%	2	13%	30	24%
51 plus	11	17%	1	2%	2	29%			14	11%
Total	63	100%	41	100%	7	100%	15	100%	126	100%

Question 6: Medicaid patients make up what percentage of your obstetrics practice during 1987, 1988 and estimated 1989: (Please exclude those you were called on for delivery only.)

Inadequate reimbursement is the most important reason mentioned for limiting the number of Medicaid patients in their practice or providing only care back-up services. Forty two percent of those responding to this question cited this as the most important reason, while 25% cited the lack of patient compliance as the most important reason. Only 10% listed fear of a malpractice suit as the most important reason why they limit obstetrical services to Medicaid patients. There was very little difference in these factors by location or specialty.

CONCLUSIONS:

Based on the information from the physician survey Maine has experienced and will continue to experience a decline in physicians who provide obstetrical services. This decline is occurring primarily among Family Physicians and mostly in urban areas of the state. However, in the future the rural areas will experience the same trend. The principal factors cited for this decline are the cost of malpractice insurance and the fear of a suit. While the size of the pool of physicians practicing obstetrics is declining, the proportion of those continuing to provide services to the Medicaid patients has declined only slightly. Nevertheless, the volume of Medicaid patients who make up the practice of these physicians is declining at a higher rate. However, Family Physicians are an exception to this trend.

This information suggests that obstetrical patients in urban areas may have to look harder to find medical care. Given the increased availability of care generally in urban areas, they are likely to find it although for poorer patients it may be at the specialty clinics in the larger hospitals. In rural areas, the data does not suggest a problem of reduced medical care availability. However, a serious decline in physicians available to treat obstetrical patients in rural areas may still come if insurance premium rates continue to climb. In urban areas, increased insurance rates coupled with Medicaid reimbursements are likely to create an access problem among the Medicaid population if more Family Physicians drop obstetrics. They are the only group of the physicians who have increased their volume of Medicaid patients.

Based on this information it cannot be demonstrated that Maine faces a medical care "crisis" in availability and access to medical care due to rising medical malpractice insurance premiums. It can be demonstrated that Medicaid patients have increasingly limited options for their obstetrical care and this is due in part to the inadequacy of reimbursement fees for these services.

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SECTION IV: TORT REFORMS

- A. Evaluating The Effect of Tort Reform Legislation
- B. Constitutionality In Maine

EVALUATING THE EFFECT OF TORT REFORM LEGISLATION:

INTRODUCTION:

In this section data on malpractice tort reforms passed by states in the past 10 years has been evaluated for evidence of their effect on insurance premium rates and access to care. We have relied on secondary information from recent initiatives in other states. For this evaluation, it had been planned to use information that was to be available from the first-round of effectiveness studies funded by the Robert Wood Johnson Foundation; However, the planned release of this information was postponed from April to October of this year. For the evaluation of the tort changes in Maine passed in 1986, primary data generated from the courts, insurance companies, and attorney interviews have been used.

Like most other states, the State of Maine enacted changes in the medical malpractice and liability insurance system in 1986 (P.L. 1986, C. 804) to achieve four general goals: (1) to improve the efficiency of the tort system in compensating medical injuries caused by provider negligence and deterring avoidable injuries; (2) to reduce medical errors and resulting injury to patients; (3) to make medical malpractice insurance more available and affordable to health care providers; and (4) to ensure the availability of essential health care services to the residents of Maine.

It is generally believed that mechanisms intended to reduce the number of medical malpractice claims brought against health care providers or to identify meritorious claims for expeditious resolution reduce the costs of defending such claims (transaction costs). Since both claims frequency and transaction costs figure into the price insurance companies charge for their products, reductions in these areas are expected to reduce the price of medical malpractice premiums. With stable or reduced insurance premiums, health care providers could afford to continue in practice and provide essential care to the people of Maine.

While the 1986 Maine reform measures have not been in effect long enough to assess their long-term success in achieving the four goals, evaluations of the effects of similar reforms in other states may suggest their probability of effectiveness. In evaluating the effect of tort reform, it is useful to remember that no single reform is likely to achieve all of the possible goals that may exist for the health care system, dispute resolution system, and financing systems. To adequately evaluate one reform, therefore, it is necessary to identify clearly not only the goal intended to accomplish, but also the effects it may have, either directly or indirectly, on other areas. It is also useful to distinguish between the goals of a particular reform measure and the goals of tort law itself, for the two may conflict. For example, one goal of the tort system is compensating persons injured by the negligence of others. If one goal of tort reform is to reduce the cost of compensating patients, this might be accomplished simply by reducing the type

or amount of compensation payable in tort actions. Thus, success in reducing the costs of tort litigation may undermine the tort law goal of compensating injured persons.

Reforms intended to reduce the costs of the medical malpractice system should also be evaluated in relation to the savings they may produce, including prevention of injuries. Danzon has suggested that "From a public policy perspective, the problem is one of designing liability rules and insurance mechanisms that minimize the total costs of injuries, including the utility costs of injuries, the resource costs of prevention, and the overhead costs of effecting compensation."¹

The reforms enacted across the country in the wake of the 1985-1986 malpractice crisis were directed primarily at improving the operation of the tort system, rather than reducing the incidence of medical error or improving the availability of affordable insurance.² Most states enacting such reforms did so in the belief that a tighter, more efficient tort system would lead insurers to moderate the price of insurance and make it available to physicians needed to deliver essential care in the state. Several states enacted new requirements for reporting insurance data and information about malpractice claims against physicians. Nonetheless, the bulk of reforms were tort reforms reminiscent of those enacted in the mid-1970's.

The immediate purpose of these tort reforms was to reduce either the frequency (number) of malpractice claims or the amount (severity) of any settlement or judgment on claims made. These measures can be classified into four categories: ³

1. Measures intended to limit the number of claims eligible to enter the tort system :

Shortened statutes of limitation.

Requirements that plaintiffs pay legal fees and costs for bringing nonmeritorious claims.

Limitations on contingency fees payable to plaintiffs' lawyers.

2. Measures intended to increase the plaintiff's burden of proving a claim:

Limitations on the use of res ipsa loquitur (which infers negligence in certain circumstances).

Narrowing the applicable standard of care to more local standards.

Speciality qualification requirements for expert witnesses.

3. Measures intended to expedite or replace the process of claims resolution:

Requirements for disclosing expert witnesses.

Pretrial screening mechanisms.

Encouragement of arbitration as an alternative to litigation.

4. Measures intended to reduce the amount of awards:

Elimination of ad damnum clauses (requesting large damages in the initial complaint).

Requirements for structured or periodic (in lieu of lump sum) payment of awards.

Collateral source rule modifications.

Limitations or caps on the amount of awards (either the total amount recoverable or the amount recoverable for non-economic damages or pain and suffering).

In spite of the attention to medical malpractice in recent years, empirical evaluations of the effects of tort reform remain limited, both in number and in generalizability. Studies reported to date focus mostly on the legal effects of specific reforms, the frequency of claims or the amount of awards paid. Few have been designed to assess the effect of reforms on the price of insurance or the willingness of physicians to continue to provide specific kinds of care. So while they can tell us the effect of reform on frequency and severity of claim, their effect on reducing or stabilizing insurance premiums or increasing access to care remains in doubt.

In reviewing the empirical findings of these studies, two caveats are in order. Most studies use statistical regression models with data from many states to identify the degree to which generic reforms explain increases or decreases in claim frequency or severity or premium rates. Since the reforms enacted in different states varied significantly in their details and these details cannot be captured in a single quantifiable measure, the results may contain unavoidable errors.⁴ In addition, the majority of studies published to date were conducted shortly after reforms were enacted and offer only short-term conclusions which may overestimate or underestimate the effect of the reforms. Long-term effects remain under study. In short, at this time one cannot really tell what the effect of tort reforms will be.

In its December 1986 report on claims and insurance costs in six states, the GAO "identified no studies conducted in the six states to measure the effect of any specific tort reforms."⁵ The GAO itself did not attempt to isolate the effect of particular reforms. Instead, it interviewed groups of officials and other

interested organizations in each of the six states. None of the groups interviewed believed that the tort reforms enacted had any major effect on any aspect of the malpractice problem in Arkansas, New York, or North Carolina, or Florida.

Some Florida officials thought it too early to assess the 1985 and 1986 reforms. Four of six interest groups in Indiana believed their 1975 reform legislation (especially its \$500,000 cap on total awards and the pretrial screening panels procedure) was a significant factor in stabilizing malpractice insurance premiums. Groups surveyed in California believed its reforms helped stabilize the size of awards and the price of insurance, although both have increased since 1980.

The GAO study may be evidence of the need to allow reform measures several years to produce any effect. As shown in TABLE 1, the frequency of claims continued to rise in the six states studied between 1980 and 1984 (although the increase for hospitals was less) even though reforms initiated in the mid-1970's had been in effect for many years. Moreover, the price of premiums rose even more dramatically during the same period. See Table 2. The experience of these states contrasts with that of Minnesota, North Dakota, and South Dakota. A study by the Minnesota Insurance Commissioner of virtually all closed claims in those three states from 1982 to 1987 found that premiums for physicians more than tripled (from \$23 million to \$71 million per year) despite unchanging claim frequency (about 11.6 claims per 100 insureds, quite similar to the national average for St. Paul's insured physicians) and declining loss payments and loss expense.⁶ These studies suggest that reforms

may not yet have had much effect on the frequency of claims and have not had any effect in lowering insurance premiums.

Indiana University School of Law is currently conducting a study of the impact of tort reform in Indiana on the availability of obstetrical services. A preliminary comparison of the number of obstetricians per 1,000 live births in several states between 1970 and 1985 indicates that Indiana's experience does not differ significantly from that of several midwestern states or the nation as a whole.⁷ Final results of the study are not expected until late summer 1989.

STATUTES OF LIMITATIONS

Changes in state statutes of limitations to reduce the time within which a claim must be filed or forfeited have been found to reduce both claim frequency and claim severity. Using multiple regression analysis, Danzon's 1986 Rand Corporation sponsored study of claims closed nationwide from 1975 through 1984, found that claims frequency decreased by eight percent.⁸ The number of paid claims decreased between 6% and 7% in states

TABLE 1

Frequency, Severity and Costs of Claims in Selected States

	St. Paul US	AR	CA	FL	IN	NY	NC
Claims Per 100 Physicians:							
1980	10.6	6.6	20.4	20.8	5.3	27.1	7.5 (1987)
1984	16.5	8.6	26.0	26.1	10.2	35.7	8.9
Claims per 100 occupied hosp. beds:							
1980		1.2	8.6	2.1	2.2	7.5	1.5
1984		1.2	10.1	2.4	2.4	8.7	1.9
Average paid claim for physicians:							
1980		\$31,619	\$32,963	\$80,556		\$46,789	\$36,064
1984		\$51,685	\$61,774	\$140,594	↓ 18%	\$104,810	\$62,043*
Average paid claim for hospitals:							
1980		\$12,00	\$13,025		\$7,146	\$90,577	\$7,098
1984		\$18,345	\$24,874		\$11,244	\$68,917	\$20,091
Insurers average cost of defending claims against physicians:							
1980		\$2,714	\$2,384				\$2,216
1984		\$5,269	\$9,358		18%	16%	\$4,772
--against hospitals:							
1980		\$2,263	\$3,422				\$3,193
1984		\$4,120	\$5,608		19%	18%	\$5,704

*Reflects a \$6.3 million award in 1985; until 1982, largest NC award was \$100,000.

Source: U.S. General Accounting Office. Medical Malpractice: Six State Case Studies Show Claims and Insurance Costs Still Rise Despite Reforms (1986).

TABLE 2

**Percent Increase in Malpractice Insurance Rates
for Selected Specialties Between
January 1, 1980 and January 1, 1986**

	AR	CA ^a	FL ^b	IN ^c	NY ^d	NC
General practice (minor surgery) ('80-'86)	58	173	199	93	335	239
Internal medicine (minor surgery) ('80-'86)	58	61	199	93	326	239
General surgery ('80-'86)	80	88	256	56	175	306
Anesthesiology ('80-'86)	61	35	217	56	96	262
Obstetrics/gynecology ('80-'86)	147	140	395	116	345	547
Orthopedic surgery ('80-'86)	50	88	198	83	216	241
Neurosurgery ('80-'86)	136	113	370	96	273	438

^aComputation based on rates obtained from the state's leading insurer of physicians for the predominately purchased coverage limits and policy form for the rating territory in which there was the greatest total number of physicians insured.

^bIn Florida, percentage increases between March 1, 1980, and January 1, 1986.

^cComputation based on rates applicable to Southern California.

^dComputation based on rates applicable to the entire state, except for Dade and Broward Counties

^eComputation based on rates that include surcharge to participate in the Patient's Compensation Fund. On January 1, 1980, the surcharge rate was 10 percent of the provider's premium for basic insurance coverage. On January 1, 1986, the surcharge rate was 75 percent

^fComputation based on rates applicable to the entire state except Nassau, Suffolk, Bronx, Kings, Queens, Richmond, Rockland, Sullivan, New York, Orange, Ulster, and Westchester Counties

Source: U.S. Congress, General Accounting Office. Medical Malpractice: Six State Case Studies Show Claims and Insurance Costs Rise Despite Reforms 15 (1986).

that reduced the limitations period by one (1) year. Since most claims are filed within 3 years of injury, the reduction is more effective with respect to statutes of limitation that are less than 5 years. Most states already have special statutes of limitation requiring medical malpractice claims for injury to adults to be brought within 2 or 3 years of injury, while other personal injury claims may be brought typically within 6 years.

JOINT AND SEVERAL LIABILITY:

The doctrine of joint and several liability means that a plaintiff who is successful in a malpractice suit may recover all damages from any defendant found at all liable for the injury. This is intended to provide the plaintiff with a mechanism to collect damages regardless of the distribution of fault. While this eases the collection process for injured patients, it may occasionally place a disproportionate burden on a defendant who is only minimally at fault. Ordinarily, such a defendant who has paid a judgment is entitled to recover from his co-defendants who were also at fault. But, if they are insolvent or immune from suit, the right is meaningless. Insolvency and immunity from suit are probably rare in the professional malpractice context.

No reported study could be found in which abolition of the doctrine of joint and several liability affected either the frequency or severity of claims or the price of insurance. Since the doctrine is essentially a means of allocating risk in satisfying judgments, abolishing it simply shifts the risk of non-recovery from a negligent defendant to the injured plaintiff. As long as liability is based on fault, the fairness of requiring one defendant to pay more in damages than he/she is personally responsible for causing must be questioned. At the same time, abolition of the doctrine does not appear to have substantial potential for reducing the amount paid on claims unless more than a handful of health care providers had no insurance or were significantly underinsured and were otherwise judgment proof. This is unlikely in Maine, although it has been reported that some hospitals are currently underinsured.

LAWYERS CONTINGENCY FEES:

Arguments for and against contingency fees are well-known. Proponents claim that they provide access to the legal system and effective representation for plaintiffs who could not otherwise afford to pursue a claim, and that they deter frivolous suits by placing the plaintiff's lawyer at financial risk. Interestingly, some citizens groups in England are advocating a similar payment system in order to obtain representation for injured persons.² Critics argue that they encourage and prolong litigation and drive up the cost, leaving less for the injured patient.

There is little empirical evidence specifically assessing these positions. A study conducted for the Secretary's Commission on

Medical Malpractice in the early 1970's found that plaintiffs' lawyers accepted only one out of eight cases presented to them for representation.¹⁰ It has been suggested that, today, lawyers are likely to reject cases in which anticipated damages are less than \$50,000.¹¹ Based on these studies and interviews conducted with Maine attorneys as part of this study, it is difficult to assess the extent to which the rejection of potential cases is attributable to the merits of the claim or to the financial cost and recovery expected.

Danzon's studies of legislative reform focused on the effect of regulating contingency fees on the rate of claims made and payments received. Her 1983 study, using 1974 and 1976 closed claims data, tentatively found that contingency fee limits reduced the amount of settlements (severity) by 9%, reduced the percentage of cases litigated to verdict by 1.5%, and increased the percentage of cases dropped by five percent.¹² However, Danzon's later 1986 study using data for the 10 years before 1985 found no systematic effect on either the number of claims filed or the size of awards.¹³

In addition, Danzon also found that there was no association between the number of attorneys in a state and the frequency of claims there. Instead, the single most important factor contributing to the rate of claims was urbanization, which increased the number of claims filed, but paradoxically decreased the number of claims paid.

COLLATERAL SOURCE PAYMENTS:

This doctrine permits plaintiffs to receive compensation for injury expenses from several sources such as health and disability insurance in addition to that awarded from a settlement. The collateral source rule prohibits introducing into evidence at trial any information about such collateral sources of compensation or reducing any award made against the defendant from other sources. In many cases, patients who receive tort awards are required to repay their health insurance for amounts expended in their behalf, but enforcement of such requirements is uncertain. Danzon's 1986 study found that states that permit or require offsetting damage awards by collateral benefits received reduced the average amount of paid claims by 11% to 18% and the frequency of claims by fourteen percent.¹⁴

CAPS ON PAYMENT AMOUNTS:

Limitations or caps on the maximum amount payable to a successful claimant probably have the most direct effect in reducing the dollar amount paid as a result of a court decision or private settlement. Many states have enacted statutory caps on either the amount payable for non-economic damages (pain, suffering, and disfigurement) or the total amount of the award (including past and future medical expenses, lost wages, and other actual monetary losses). Danzon's 1986 study found that the average

payment was reduced by 23% in states that enacted caps on all or part of awards payable.¹⁵ At the same time, there is no clear evidence that caps have reduce liability insurance premiums.

Caps appear to affect a small number of cases--those with the largest awards. Danzon found that 5% of the claims closed with payment between 1979 and 1985 accounted for 50% of the total dollars paid. Thus, caps do effectively limit the total amount paid by insurers. They may also contribute greater predictability to future liability estimates by setting an outside limit on some or all of the damages payable. However, because they serve to reduce only those awards that would exceed the cap, they may have little effect in states where awards already rarely exceed the cap.

A preliminary report of an ongoing study of tort reform in Indiana, where total damages are limited to \$500,000, noted that the median payment per closed claim was \$446,000.¹⁶ Since the maximum of \$500,000 was paid in one-third of the claims, the report expressed concern that "some large claims may be inadequately compensated." In cases where medical expenses and lost wages approached \$500,000, there would be little left to pay general damages after deducting attorneys fees.

Some states have placed limitations on non-economic damages rather than caps on total awards because the former does not prevent recovery of out-of-pocket expenses and lost earnings. Moreover, it has been reported that non-economic damages account for a substantial proportion of the total award in cases with the largest recoveries. For example, the GAO reported that in a national sample of 1984 claims, only 5% of the paid claims included noneconomic damages over \$100,000, but the amount of such noneconomic damages accounted for 42% of the dollar value of total payment.¹⁷ Thus, arguably, limiting non-economic damages appears to make awards more predictable without depriving injured parties of compensation for economic losses.

SCREENING PANELS:

Section 2851 of the P.L. 1986, Ch.804 states that the purposes of prelitigation screening panels are: (1) to identify claims which merit compensation; (2) to encourage early resolution of those claims prior to the commencement of a lawsuit; and (3) to encourage early withdrawal or dismissal of nonmeritorious claims. We are not aware of any definitive studies evaluating the merits of claims before screening panels. Such a study would require extensive medical and legal assessments of each case. There are, however, a few descriptive studies of the time required to resolve claims and the extent to which panels may encourage early resolution, which are the second and third objectives of Maine's panel system.

In 1986, the U.S. General Accounting Office reported that a majority of consumer groups believed that panels decreased the

time required to resolve claims and reduced the number of claims going to trial.¹⁸ However, the research completed to date does not provide definitive evidence either to support or refute that belief. Few researchers have been able to collect adequate information to assess whether the panels are achieving their various purposes.¹⁹ The National Center for State Courts, in its 1980 study of the Arizona system, suggested that the panels were not yet effective in speeding up the resolution of claims, but cautioned that the information was not complete enough to permit a definite conclusion as to whether the panels should be retained.²⁰

Danzon has found that screening panels had no demonstrable effect on the frequency or severity of claims.²¹ On the other hand, Sloan found that mandatory screening panels had a statistically significant association with lower malpractice insurance premiums for ophthalmologists, orthopedic surgeons, and non-surgical general practitioners.²² Interestingly, this was the only reform measure he found to have any effect on premiums.

Indiana established a pretrial medical review panel procedure in 1975 to make non-binding determinations of whether a provider adhered to the proper standard of care in individual cases.²³ Until 1985, no action against any health care provider could be commenced in court until the panel had considered the case and rendered an opinion. In 1985, the statute was amended to permit two exceptions to the prescreening requirement. Claimants can go directly to court if (1) they seek no more than \$15,000 in damages (in which case recovery of more than \$15,000 is barred), or (2) all parties agree to bypass the panel (an apparently rare event). In addition, a provider who is not insured by the state's Patient Compensation Fund may be sued in court without the panel process and is not protected by the state's \$500,000 cap on damages.

A recent report on Indiana's medical panel system offers some useful information.²⁴ Claims are filed with the Insurance Commissioner who notifies the health care providers named. The parties themselves choose the medical review panel chair (who must be an attorney but has no vote). The claimant and defendant each choose a health care provider member who in turn selects the third member, also a health care provider. There does not appear to be any entity with authority to control or expedite panel proceedings. While the statute requires the panel to render its expert opinion within 180 days after the members are selected, the time limit is unenforceable and, in practice, cases may remain in process for more than one or two years. Most of the time is spent on discovery. Table 3 summarizes the panel experience between 1975 and 1987.

According to the Report, panels have rendered opinions in 22% of the cases filed. The panels found "malpractice" in 11.5% of these cases and no malpractice in 74% of such cases. There is

TABLE 3
Indiana Medical Review Panel Experience
Status of Claims Filed

	#Claims Filed each Year	Claims Pending	Settled/ Withdrawn before Opinion	Panel Opinion Rendered	Settled After Panel Opinion	Judgment Paid
1975	1	0	1	0	0	0
1976	18	2	8	7	1	0
1977	141	10	71	44	6	10
1978	272	18	150	80	12	12
1979	318	24	153	103	5	33
1980	400	67	187	108	9	29
1981	431	100	166	136	2	27
1982	555	146	185	165	9	50
1983	626	205	169	201	7	44
1984	687	330	166	155	2	34
1985	78	571	128	60	1	20
1986	683	635	37	2	0	9
TOT:	4,912	2,108	1,421	1,061	54	268
% of total	100%	43%	29%	22%	4%	5%

Source: Indiana Dept. of Insurance, Patients Compensation Authority, 1986 Year End Report

suggestive (not yet hard) evidence that the panels may reduce the proportion of claims that go to court. The Report noted that plaintiffs' attorneys feel that a panel opinion finding no malpractice will influence any subsequent court action and these may encourage pretrial settlement. One Indiana insurance company asserted that only 2% of the claims filed against it go to court. The GAO reported that the average amount of paid claims in Indiana declined between 1980 and 1984.²⁵

Indiana University School of Law's current study of the effect of Indiana's pretrial medical review panel on the incidence of court filed claims under \$15,000 will not be completed for several months. Preliminary results indicate that a high proportion of cases are settled or otherwise disposed of during the panel process.²⁶ The panel process may be helped greatly by the active support of the State's medical societies which have encouraged participation in the process by well-respected, qualified physicians. The Report identified three main difficulties with panel review: (1) the likelihood of lengthy proceedings that delay claims resolution; (2) the absence of any central authority to monitor the process and enforce time limitations; and (3) the absence of a mechanism to collect data and evaluate the effect of the panels.

A recent report published by the Risk Management Foundation of the Harvard Medical Institutions provides a somewhat different, but also positive, picture of the Massachusetts pretrial screening panel experience.²⁷ All claims alleging medical malpractice have been required to be submitted to a tribunal since January 1976.²⁸ Tribunals consist of a superior court justice, a physician, and an attorney who decide whether the claimant's evidence "is sufficient to raise a legitimate question of liability appropriate for judicial inquiry." If the tribunal finds insufficient evidence, the claimant may not proceed to court without posting a bond to cover expenses. Under the law as amended in 1986, tribunal findings may be used as evidence relevant to determine whether the claim was frivolous.

The Risk Management Foundation (RMF), which is the second largest insurer of physicians and hospitals in Massachusetts, (the Massachusetts Joint Underwriting Association is the first) reviewed all 675 claims against 1164 of its insured physicians that were heard by tribunals from 1978 through 1987. About 34% of the tribunal decisions were for defendants, with 66% for plaintiffs during this 10-year period. Almost half (45%) of the cases in which the tribunals decided for the defendant were dismissed because the plaintiff failed to post the bond required to proceed to court. The State's Joint Underwriting Association had more than four times as many physicians involved in tribunals as RMF during the past five years. Their experience was similar to that of RMF, however. More than one-third of the tribunal decisions were in favor of the physician or hospital; about 47% of these were dismissed for failure to post bond.

The report notes that nearly 1 out of 6 defendants was dismissed from a claim after the tribunal process and concludes that the tribunals function effectively as a screening mechanism. It does not include data on the costs or length of the tribunal process. Possible problems with the system include some difficulty in locating physician panel members, especially for the increasing proportion of cases brought against high risk specialities. To avoid bias, the physician panel member must practice outside the defendant's county of practice or residence. Since most claims originate in Boston, it is increasingly difficult to find physicians who practice outside Boston to serve on a panel.

Maryland has required all malpractice claims exceeding \$5,000 to be submitted to a pretrial screening panel (appropriately named the Health Claims Arbitration Office) since 1977. Three-person panels, consisting of an attorney as Chair, a health care provider and a layperson, determine liability and award damages, although either party may obtain a trial *de novo* in court thereafter. Preliminary results of a John Hopkins University study of the screening process's effect on claims frequency indicated that by 1985, approximately 2.3% of claims proceeded to trial.²⁹ During the decade before screening panels were required, 9% of claims were resolved by jury verdict. More than half (55%) of the claims studied that were closed from 1977 to 1985 were disposed of without using the screening process. The average time required to resolve a claim was estimated to be no more than 22 months. This compares favorably with GAO's national study findings of 25 months for 1984. However, the length of time required to resolve claims in Maryland before institution of the screening panels was not available for comparison.

The Maryland study also indicated that almost 10% of claims filed with the screening panel were decided in favor of the claimant. This represents about 40% of those claims that completed a panel hearing, a larger percentage of decisions for claimants than ordinarily occurs in jury trials. Twenty-three percent of claims that completed a panel hearing went on to a jury trial. Panel decisions were upheld in 72% of these cases. The average panel award was \$289,561, while the average jury award was \$412,532. Insurer claims data showed that only 28% of all claims were closed with payment, compared with 43% in the GAO's 1984 national study.

MAINE SCREENING PANELS:

The study group conducted some preliminary research on the conduct of the screening panels in Maine focusing on the extent of their use by the Bar, their cost in relation to nonpanel suits, how they have affected the practice of attorneys who use them, and claims results. A structured survey was conducted with eight attorneys (four plaintiff and four defendant), the State Court Administrator, the Superior Court

Justice in charge of the panels, and a claims administrator from the St. Paul Companies. The attorney survey instrument is included in ATTACHMENT C. The Maine panel system and the survey results are described in ATTACHMENT D and summarized below.

PANEL USE AND RESULTS:

Between January 1, 1987 and April 13, 1989, 232 notices of medical malpractice complaints had been filed with the Superior Court. 32 panel hearings have been held. Insurance company data confirm that panel hearing decisions have been made in favor of defendants at a rate at least twice that of plaintiffs. Of the 18 cases involving Medical Mutual defendants, 12 had unanimous rulings in favor of the defendants and six resulted in split decisions. An indemnity of \$7,000 has been paid by Medical Mutual in only one of these six claims to date. According to St. Paul's data, no panel decisions have resulted in favor of the plaintiffs and no indemnity payments have been made as a result of screening panel hearings. However, a number of cases were settled before final decisions were rendered.

The costs of panel use were considered by some as a detriment, especially where they may be incurred in addition to trial costs. Discovery is the legal term used to describe the various pretrial procedures that are used by one party to obtain facts and information about the case from the other party in order to assist in trial preparation. In most litigation cases, discovery requires considerable time and expense at the pretrial phase. The extent of discovery permitted during the panel process is likely to affect both the cost and the length of the proceedings. The law provides that if a party applies to the Chairman, he/she may permit "reasonable discovery." The term "reasonable discovery" is vague, however, and the attorneys and Justice McCarthy are not certain how much discovery preparation for the screening panel hearing is allowed, will be allowed, and should be allowed. All respondents considered this an important issue. Rules on the amount of discovery that will be allowed in preparation for panel hearings have been difficult to develop. A system of setting the amount of discovery has been developed, but it depends on the good faith agreement of the attorneys involved. However, if the attorneys choose to conduct full discovery, they must agree that it can be used at trial.

To date the average loss expense to insurers for panel hearings has been \$9,169 for the Medical Mutual cases. This is lower than the average loss expense of a voluntary settlement (\$11,327) or a case that is won by defendant after trial (\$33,789). Yet it is higher than the average loss expense for a defendant that is dismissed from an action prior to a settlement. According to Panel Chairman Justice McCarthy, one of the benefits of the panels is to reduce the number of defendants named in a case. Judging from these data alone, the cost of the panel is high for this outcome but low in relation to the voluntary settlement or

trial outcomes. One difficulty in assessing the effectiveness of the panels using these data is that one cannot tell the extent to which the cost of panel hearing will be added to or substituted for settlement and litigation costs.

Plaintiff attorneys interviewed were uniformly opposed to the panels and say they will always waive their use if the defense agrees. While both defense and plaintiff attorneys reserved judgment on the panels until more time has elapsed, both said they appeared to be disposing of cases earlier in the process. Plaintiff attorneys say that panel use may result in their refusing meritorious cases because the settlement will not cover expenses if the case has to go to both panel and trial.

CONCLUSIONS:

Nationwide the price of malpractice insurance has continued to climb, with some variations, over the period 1980 to 1988. Rate increases for OB/GYNs ranged from 116% in Indiana to 547% in North Carolina between 1980 and 1986. Moreover, the average cost incurred by insurers to defend a claim has increased over the same period. Some of this may be attributable to a continuing rise in the incidence of claims, although the increases vary from none (e.g. Minnesota) to substantial (e.g. Indiana), while in some states the rate of claims against hospitals has remained stable. In general, the dollar amount of the average paid claim has increased, although in Indiana it decreased for physicians and in New York it decreased somewhat for claims against hospitals.

Interestingly, in late April, the Wall Street Journal reported that several insurance companies plan to decrease premium rates this year.³⁰ The reasons cited by insurers for the decrease are a reduction in the number of claims filed since the mid-1980's and a decrease in rate of increase in settlement costs. Others suggest that tort reforms like caps on damages have helped. Still others say that fewer claims are being brought because litigation is becoming too complex and expensive, jury awards to plaintiffs are decreasing both in number and amount, and lawyers are refusing to take smaller cases. Some fear that this reduction may parallel the slight decline in insurance rates that took place in the late 1970's, and that rates will climb again in the future. They note that current settlements may reflect the lower inflation rates in the early 1980's when many of the injuries now being settled occurred, and that future health care cost inflation will bring a rise in the expenses incurred by claimants that seek compensation.

It is not yet clear whether tort reforms actually have succeeded in reducing the price of insurance or the frequency or severity of claims, or whether they will succeed in reducing or stabilizing premiums or claims in the future. It is also not known whether these parameters would have increased more in the

absence of the reforms. Moreover, since a significant number of the reforms in other states have been ruled unconstitutional, have not been put into effect, or have been repealed or allowed to expire, they may not have been operational long enough to have a clearly measurable effect. It is difficult to isolate the effect of any single reform. Many other factors, such as the distribution of illness, physicians' capabilities, biotechnology, peer review and risk management programs, litigation strategy, public attitudes towards risk and compensation, and insurance rate making procedures, all may contribute to the number of claims filed, their outcome, and the price of insurance.

It is far easier to estimate the effect of certain reforms on the frequency or severity of claims than on the price of insurance or the willingness of physicians to practice certain high risk specialties. Caps on awards certainly do limit the dollar volume of high-stakes claims (as well as introduce some consistency into estimates of damages), but may undercompensate claimants with extensive losses. Limits on contingency fees may increase the proportion of compensation actually retained by injured patients, but may leave patients with meritorious claims for small amounts without representation. The effect of screening panels is perhaps the most difficult to predict. They may help to identify meritorious claims and encourage early settlement, but they may also increase transaction costs. It appears that the appeal of screening panels varies with the particular composition of the panels, the uses that can be made of their decisions in subsequent court proceedings, and the efficiency of their operation.

There is little doubt that resolving tort claims through a jury trial can be an inefficient and expensive system of dispute resolution. Any effort to improve its efficiency and reduce its cost, while not sacrificing its benefits, should be welcome. Virtually all such measures, however, operate by shifting the probability of success somewhat from one party to the other. All dispute resolution systems produce some false positives and false negatives. Efforts to reduce costs (and false positives) by limiting the number of claims that are actionable, the grounds for liability, or the amount of damages recoverable all increase the probability that some eligible persons will go uncompensated (false negatives). Efforts to decrease both the false positives and false negatives by refining the mechanism to better identify meritorious claims may increase the complexity, time and expense of decision-making. At this point, it cannot be demonstrated whether most tort reform will do what is being asked of them, namely to reduce insurance premiums or increase availability of care.

For these reasons, new tort reforms at this time, are questionable policy options to reduce insurance premiums and to insure medical care availability. Ongoing studies to be completed during the next two years may provide a clearer picture

of the trends in claims frequency and severity in states that have and have not enacted reforms. None, however, expects to be able to demonstrate any direct relationship between tort reform and the price of insurance.

If reforms are contemplated, the Legislature might consider designing them to expire after a fixed period, say five years if the price of insurance and the availability of essential medical services do not improve by some measure satisfactory to the Legislature. In this way, reforms that serve no purpose will not remain in effect to engender continued controversy. Moreover, under such a system, it will be far easier to evaluate the effectiveness of particular reforms in achieving their goals for the health care system in the future.

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PHR FINAL REPORT MMLS (6/6/89)

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CONSTITUTIONALITY OF TORT REFORM

INTRODUCTION:

An elementary precept of our government is that Acts of the Legislature must conform to the constitutions of Maine and the United States. Accordingly, the Legislature should give thoughtful attention to the constitutionality of proposed legislation, particularly in times of perceived crisis when fundamental values may, all the more casually, be overlooked. Evidence of today's medical malpractice crisis can be seen in the high price of liability insurance largely, although by no means exclusively, for physicians and other health-care practitioners. High insurance costs, like other free-market forces, affect human behavior and thus can produce unplanned and undesirable dislocations in availability of health care and other social pursuits. Among the remedies currently being considered by the Legislature are reforms in the rules and procedures of tort liability.

Tort reform legislation must accord with constitutional principles of due process of law, equal protection of the law, taking of property, and the right to trial by jury among others. When the Supreme Judicial Court assesses Legislative Acts against those constitutional values, it does so on the premise of a strong presumption in favor of constitutionality. The Court thereby extends great deference to the Legislature's judgment. Perhaps the most far-reaching example of sweeping changes in tort law sustained by the Supreme Judicial Court is the Maine Workers' Compensation Act. See *Milkman's Case*, 118 ME. 172, 106 Atl. 606 (1919). As a general matter, both the substantive and procedural rules of tort law were originally adopted as preferred policy choices either by the courts as rules of common law or by the Legislature as plain expressions of State policy. Because those rules were not compelled by the State or Federal Constitution, they may be changed at will. On the most general level, therefore, the conclusion is that legislative changes of tort rules and procedures will most probably be held by the courts to be constitutional. However, specific changes made may violate constitutional principles.

Constitutional standards are less, not more, exacting than standards of wisdom and good policy which legislators commonly apply. For that reason, no citizen legislator should be deterred from considering constitutional questions. Although the answers are matters of judgment to which the courts have the final say, ideas in the constitution are not the special providence of lawyers and judges, but are well within ordinary thoughtful citizens' reach. The Maine Constitution's due-process and equal-protection clauses provide:

No person shall be deprived of life, liberty, or property without due process of law, nor be denied the equal protection of the laws [Me. Const. art. 1, S6-A]

Due process embodies a principle of basic rationality: "whether the means employed are appropriate to the achievement of the objective." State v. National Advertising Co., 409 A.2d 1277, 1288 (Me. 1979). Equal protection embodies a principle of treating like cases alike, an idea of evenhandedness: "a classification must not be arbitrary." Portland Pipe Line Corp. v. Environmental Improvement Commission, 307 A.2d 1,22 (Me. 1973). If a distinction between two groups is "based upon actual differences bearing a substantial relation to the public purpose sought to be advanced by such discrimination . . . it is not a violation of equal protection guarantees." (Ibid.) Most legislators are routinely forced to think about these two basic ideas because they bear as much on questions of policy as on constitutional law. Any conscientious legislator will question what a particular reform of tort law will do, whether it is a reasonable means of achieving the objective sought and whether the bill draws distinctions which are justifiable.

Constitutionally-based court litigation is the typical method of asserting the rights protected by the law of torts. Tort litigation, however, like democracy, may not be pristinely efficient. The Maine Constitution provides:

In all civil suits ...the parties shall have a right to trial by jury, except in cases where it has heretofore been otherwise practiced ... [Me. Const. art. 1, S20]

Both the plaintiff and defendant in a civil suit have a right to trial by jury. Juries composed of ordinary Maine citizens represent the public in deciding private disputes just as legislators represent the public in deciding issues of policy. Jurors find the facts, apply the statutory and common law under instructions from the court, and decide the damages.

Whether proposed changes in tort law are constitutional is a different question from whether those measures are wise and should be enacted. Tort rules and procedures are supposed to be designed to achieve justice. The rules of tort law were supposedly evolved to protect the best interests of all Maine citizens, both those who seek redress for injuries suffered by them and those who may have to pay for the damages done. Before some principle of tort liability is jettisoned, one should be sure that it was a mistake from its inception (that it did not achieve the justice originally supposed) or that it has outlived its usefulness (that its ill effects outweigh the good). Otherwise, today's solutions will be tomorrow's problems. States which have retreated from earlier-enacted tort reforms have learned that lesson by experience.

TORT LIABILITY:

Joint and several liability and the collateral source rule have been the focus of policy changes in tort liability. The first makes all defendants who are liable for a plaintiff's injuries answerable for the entire damage. (Joint and several liability has no effect on how defendants divide responsibility for paying among themselves, a matter governed by rules of contribution and indemnity.) The second, the collateral source rule, says that benefits obtained by a plaintiff, including his own insurance, workers compensation payments, and donations from family and friends, are not credited to a tort defendant to reduce the amount of the damages to be paid. (Collateral benefits may counterbalance a plaintiff's inability to recover litigation costs including attorneys' fees.) No serious constitutional objection could be raised to reversing either rule.

If a proposed change in tort law bears no more than a speculative relation to legislative goals of lowering insurance rates or increasing availability of quality health care, for instance, then it will founder on the idea expressed in the Constitution as due process of law. For example, reversing the rule of joint and several liability with an aim of reducing medical malpractice insurance premiums or increasing availability of quality health care bears little demonstrable relation to the goal because the rule does not figure prominently in malpractice cases. As discussed in Section IV-A, little evidence exists to prove that tort reforms achieve their desired goals.

If a change would unjustifiably discriminate against persons injured in one way rather than another or discriminate in favor of a special class of defendants, then it will conflict with the idea expressed as equal protection of the laws. Should the victim of a physician's negligence be required to subtract from his recovery the health insurance benefits he has already paid while the victim of an automobile driver's negligence is not so required? Can the distinction be justified? While abolishing the collateral source rule entirely may be constitutional, see *Johnson v. Farmers Union Central Exchange, Inc.*, 414 N.W. 2d 425 (Minn. App. 1987), repealing the rule only for medical malpractice may violate equal protection of the laws. See *Farley v. Engelken*, 740 P.2d 1058, 1068 (Kan. 1987) ("the classifications created . . . treat both negligent health care providers and their victims differently from other persons similarly situated"). Cf. *Austin v. Litvak*, 682 P.2d 41, 53 (Colo. 1984); *Kenyon v. Hammer*, 688 P.2d 961 (Ariz. 1984) (statutes of limitation deny equal protection when applied to undiscoverable injuries). The Supreme Courts of New Hampshire and Rhode Island have held that certain tort-law changes could not be restricted to medical-malpractice actions without violating equal protection of the laws. See *Carson v. Mauer*, 424 A.2d 825 (N.H. 1980); *Boucher v. Sayeed*, 459 A.2d 87 (R.I. 1983).

To decide whether Maine citizens would be better served by reversing the rules of joint and several liability and of collateral source would require analyzing why those rules were thought to be proper means of promoting the ends of justice and thinking about the effects of reversal. Should an arsonist, for instance, obtain the benefits of his victim's fire insurance or be credited with the value of money and goods collected to help a family put out of their home? Eliminating the collateral source rule would have those effects.

PRETRIAL PROCEDURES:

Similarly, changing pretrial procedures, such as shortening the time within which a claim must be asserted (Statute of Limitations), imposing notice requirements, or requiring mediation or pretrial screening, should not be susceptible to serious constitutional challenge even if they increase the difficulty of asserting perfectly valid tort claims. See, e.g., *Miller v. Fallon*, 134 Me. 145, 147-48 (1936) (sustaining reduced statute of limitation for medical malpractice actions); *Thut v. Grant*, 281 A.2d 1 (Me. 1971) (sustaining replacement of bastardy act with paternity act); *Giberson v. Quinn*, 445 A.2d 1007, 1009 (Me. 1982) ("It is beyond dispute that the state may erect reasonable procedural requirements to the exercise of a right to an adjudication," sustaining ten-day notice requirement for hearing on suspending a driver's license.) The primary issues in all such cases are policy issues. Would Maine citizens benefit under the proposed changes and would the changes be likely to produce the desired results such as reduced insurance costs without inhibiting meritorious claims?

LIMITING DAMAGES:

Opinions are divided on whether maximum limits on damages or "caps" violate the Constitutional right to trial by jury. See *Fein v. Permanente Medical Group*, 695 P.2d 665 (Calif. 1985) (upholding limit on noneconomic damages); *Hoffman v. United States*, 767 F.2d 1431 (9th Cir. 1985) (upholding limit on noneconomic damages); *Etheridge v. Medical Center Hospitals*, 376 S.E. 2d 525 (Va. 1989) (upholding limit on medical-malpractice damages); *Johnson v. St. Vincent Hospital, Inc.*, 404 N.E. 2d 585 (Ind. 1980) (upholding limit on medical-malpractice damages); *Lucas v. United States*, 757 S.W. 2d 687 (Texas 1988) (statutory limit on medical-malpractice damages unconstitutional); *Kansas Malpractice Victims Coalition v. Bell*, 757 P.2d 251 (Kan. 1988) (limit on medical-malpractice damages denies right to jury trial); *Smith v. Department of Insurance*, 507 S.2d 1080 (Fla. 1987) (limit on noneconomic damages unconstitutional); *Richardson v. Carnegie Library Restaurant, Inc.*, 763 P.2d 1153 (N.M. 1988) (damage limit in dramshop act denies equal protection).

Any statutory figure establishing maximum damages is bound to be arbitrary. When applied to actual losses, especially provable noneconomic losses, statutory limits inescapably intrude upon the jury's traditional function in civil suits to assess damages

based on facts proven at trial. Moreover, a damage limit, by definition, gives a wrongdoer an immunity allowing him to inflict harm above the limit without obligation to redress the harm done.

The cap works only where the actual damages exceed the amount that a negligent defendant is required to pay. In effect, the limit takes property from the victim and gives it to the wrongdoer [Cf. Me. Const. art. 1, S.21 ("Private property shall not be taken for public uses without just compensation . . .").] (Damage limits in purely statutory actions, such as wrongful death, dramshop violations, and claims against the state, are distinguishable because the Legislature has in effect eliminated a common law immunity up to but not above the damage ceiling.) Maximum limitations on recovery of actual damages will therefore raise grave constitutional doubts.

Confining a damage limit to a disfavored class of injured persons, such as medical-malpractice plaintiffs, just compounds the constitutional hazard, to say nothing of the problems of policy. Should a person disabled for life by negligent surgery be treated differently from a person identically injured by someone's negligent use of a firearm? The Legislature must consider this question of policy: Are jury awards in Maine so excessive, so uncontrolled by the courts' case-by-case review of jury verdicts, to warrant a statutory limit? Evidence of excessive verdicts in Maine is hard to find.

SUPPORT PROGRAMS:

Finally, positive legislative support programs, such as patient compensation funds or malpractice insurance subsidies, would most probably withstand constitutional challenge. In comparable matters, the Supreme Judicial Court has deferred to the Legislature's judgment on the wisdom of compensation funds and subsidizing private enterprises to achieve broad public purposes. See *Portland Pipe Line Corp. v. Environmental Improvement Commission*, 307 A.2d 1, 24-25 (Me. 1973) (oil spill compensation fund); *Common cause v. State*, 455 A.2d 1, 20-26 (Me. 1983) (Waterfront development and rent-free lease of facilities to private corporation to promote employment).

CONCLUSION:

The Legislature can constitutionally change most rules of tort law and procedures of tort litigation. Placing a maximum limit on recoverable damages is the most constitutionally-suspect of all current tort reform proposals. Before tinkering with tort law, the Legislature should have some good reason to think that the changes proposed will achieve the desired goals and should also be careful to avoid drawing unjustifiable distinctions among tort claimants and among tort defendants. The right to trial by jury, guaranteed to plaintiffs and defendants in tort cases, is deeply rooted in the Constitution of Maine and its infringement, while constitutional, may not be wise policy.

SECTION V: RATE SETTING PRACTICES AND POLICY OPTIONS

RATE SETTING PRACTICES AND POLICY OPTIONS

HOW MEDICAL MALPRACTICE RATES ARE SET:

Although the detailed steps involved in setting medical malpractice rates are laborious and complex, the goals and the general methods are readily understood. Sellers of insurance obligate themselves to accept the financial consequences of certain risks of their insured. If insurers are to remain in business, they must be able to collect enough premiums to cover their claims payments and their expenses and to provide a profit. The rate setting process is the method by which insurers make these estimates.

Medical malpractice insurance poses particularly difficult challenges to the rate setter. First, unlike physical damage insurance, payment of medical malpractice claims may not take place until many years after the policy has been issued and the premium collected. It is usually these claims which are largest and if they result in a monetary settlement, a significant portion is likely to be covered by reinsurance.

When a company is notified of a claim, it establishes a reserve to cover its expected costs, but because this is such a "long tail" type of coverage, the correctness of the reserve may remain unknown for years. Secondly, there are so few claims and so few large claims payments in Maine that the data are volatile and may lack sufficient statistical credibility. The companies, therefore, depend to some degree on data from other jurisdictions which may not accurately reflect Maine experience.

Since 1976, only "claims made" medical malpractice policies have been sold in Maine. A claims made policy covers only those claims of which the company has received notification during the policy year. A policyholder who does not renew such a policy becomes liable for claims made after the expiration of the policy arising from events that took place during the policy period. To avoid this risk of future claims, a person can buy insurance which provides "tail" coverage. This coverage is usually purchased when a physician switches from one insurer to another, thereby obtaining coverage for the period when the physician was under the former insurance policy.

Medical malpractice premiums are used to pay claims costs, expenses, and to provide a profit to the insurance company. Insurance companies must estimate what claims costs and expenses are likely to be. First, companies group their policyholders into classes of similar risks, usually by practice specialty. Then, to estimate expected claims losses for each class, insurers examine the historical changes in pure premium that have taken place over a multi-year period. Pure premium consists of claims payments and reserves made for cases reported, but not yet settled as well as any expenses incurred in settling cases (known as allocated loss adjustment expense or "ALAE").

Pure premium is the product of the frequency and severity of claims. Company actuaries choose among a number of possible statistical methods to project expected pure premium trends. In making such projections, the rate setter should take into account conditions affecting frequency or severity which existed in the historical period, but which are expected to differ in the projection period as well as new conditions likely to affect severity or frequency of claims in the projection period. An obvious example of the latter is the effect of changes to the Medical Malpractice and Liability Insurance System passed by the Legislature in 1986 (P.L. 1986, Chapter 804).

The next step in setting rates is to add expenses to pure premium. These expenses include commissions, company incurred acquisition expenses, taxes, licenses, fees and general administrative expenses. As in the case of projecting pure premium, the companies make their expense estimates on the basis of past experience.

Insurers invest the premiums they receive and keep them invested until they are used to pay losses or expenses. In a long-tail line such as medical malpractice, many premium dollars remain invested for years. It is recognized that the rate setting process should include an adjustment to the rate to reflect this investment income. However, what method to use to reflect an appropriate amount of such future income is in dispute. Until now, the Maine Bureau of Insurance has accepted the industry's approach, one which does not reflect the income which the industry actually receives from its investment of premiums.

In the absence of full and accurate cash flow data, it is impossible for the Bureau to know how much income is available for investment. The question may be of less relevance to medical mutual companies, such as the Medical Mutual Insurance Company of Maine (MMIC), because the insured physicians will presumably benefit from investment income by a reduced rate in the form of dividends or by their ownership of the company. It should be noted, however, that the history of mutual companies shows that they have frequently maintained large surpluses and have not been subject to effective control by the policyholders. MMIC is a case in point. Its surplus has nearly doubled in each of the last two years. With 9.2 million dollars surplus in 1988, its premium to surplus ratio is now almost 1:1 which means that the company has between two and three times the amount of surplus generally considered to be adequate.

Medical malpractice rates are set for a basic level of coverage such as \$100,000/300,000 limits. This rate is then adjusted by a so-called "increased limits factor" to reflect the added risk to the insurer of policies with higher than the basic limits. As St. Paul's noted in its April 28, 1988 filing, [Increased limits factors are difficult to compute from actual data because of the great statistical variations of large losses.] In the absence of sufficient data, rate setters use various theoretical models to arrive at increased limits factors

which include the use of countrywide data.

Periodically, insurers analyze the class "relativities" to ensure that each class of insured contributes its fair share of premium based on its claim experience. Although changes in class relativities do not affect the overall premium amount, they can combine with rate changes to produce large rate fluctuations for classes of insured in a single year.

It is common for insurance companies to spread their risks to other companies by the process of reinsurance. Companies selling reinsurance products are beyond effective regulatory oversight by state regulators. In the case of MMIC, because its business is limited to writing medical malpractice in Maine, the company has found it advisable to reinsure its larger risks. Approximately forty percent of MMIC's exposure is reinsured. It uses two reinsurers, and there is now (unlike in the recent past) a competitive market for reinsurance.

St. Paul's, as do most other writers of medical malpractice insurance, attempts to collect enough premium to include a profit. A recent MMIC filing states that MMIC has not included any amount which was intended to add to surplus. For companies which do attempt to make a profit, the filings express their plans in terms of a target rate of return. In selecting such a target, companies take into account the risk posed by the line of insurance and comparable rates of return in other lines of insurance.

INSURANCE SYSTEM OPTIONS TO REDUCE OR STABILIZE RATES:

In suggesting changes that will tend to reduce or stabilize medical malpractice rates, one should bear in mind that any system must provide sufficient premium to pay a company's losses and expected losses, its reasonable expenses, and a reasonable profit. Any rate-setting system which does not meet these needs would either be struck down by a court as biased rate making or would lead to withdrawal of insurers from the market.

Those who complain about medical malpractice rate increases are affected by two related phenomena: large rate increases over time and rapid annual rate fluctuations. Insurers recognize that sudden rate changes, up or down, are disruptive; but because of the volatility of medical malpractice data, insurers have not succeeded in avoiding such market disruptions. The following considerations are designed to address both issues.

A. Stronger Oversight By The Insurance Bureau:

Rate Filings: Maine, like many other states, employs a "file and use" system for most insurance products. Medical malpractice rates go into effect thirty days after they are filed with the Bureau of Insurance. The Bureau sometimes approves filings without the scrutiny afforded by a public hearing as was the case with the most recent St. Paul's Companies filing. Moreover, the Bureau makes no filing of its own so that even if it holds a

hearing, it is limited to the largely passive role of approving or disapproving the filing on the basis of the filings before it. The problem is compounded by the fact that filings by parties other than the insurer are generally limited in scope to the particular interest of the filing organization. The Bureau's August 1, 1988 decision on St. Paul's filing provides explicit recognition of this problem. For example, considering the reasonableness of St. Paul's target rate of return, the hearing officer notes that there was no evidence in the record upon which a different rate of return could be determined. The Legislature might effect a stronger oversight role for the Bureau of Insurance by considering passage of statutory amendments such as:

1. That a hearing be required to be held for every medical malpractice rate filing.
2. That medical malpractice rate filings become effective only after a hearing and decision.
3. That the Bureau of Insurance be empowered to make advisory filings in response to filings by medical malpractice companies and that the Bureau use expert witnesses at the hearings to support the Bureau's filings. The costs of such activities should be made accessible to the insurers.

Investment Income: Because the treatment of investment income can have a substantial impact on rates in a long-tail line like medical malpractice insurance, it would be advisable to provide the Bureau with explicit statutory authority and a mandate to take such income fully into account. Therefore, the Legislature could consider the addition of the following to the insurance statutes:

That the Superintendent of Insurance shall develop and periodically update a model for estimating investment income earned in the business of medical malpractice which takes into account both risk and market rates of return and that no filing is to be approved that does not substantially meet the income projections of such model.

Closed Claim Studies: Not only does the Bureau of Insurance lack alternative recommendations by experts at hearings, but it is forced to rely on industry data, much of which is not based on Maine claims. Recently the Minnesota Insurance Commissioner issued a report based on a detailed study of all medical malpractice claims in three states over a six year period. Although the insurance industry disputes his conclusion that the industry has consistently and substantially overestimated losses and has thus over-reserved, the data developed in the study will be useful for anyone setting or reviewing rates. Therefore, the Legislature might consider additions to the insurance statutes:

1. That the Superintendent of Insurance be directed to undertake a periodic detailed study of all medical

malpractice claims in Maine as well as whatever additional claims deemed to be advisable in other jurisdictions relied upon in the filings of the insurers and to issue reports thereon. The costs of such studies and reports shall be assessed to the insurers.

2. That the Superintendent of Insurance be directed, at least every five years, to undertake a study of the reserving practices of writers of medical malpractice insurance in Maine.

B. Minimizing Disruption:

The fact that St. Paul's proposed almost a 20% increase in rates in 1988 and has proposed an approximately 20% decrease in 1989 demonstrates the extreme rate volatility in this line of insurance. Such rate changes not only alarm policyholders, but make it difficult for them to make financial plans. The Legislature might consider an expression of public policy to avoid market disruption in medical malpractice. The following additions to the insurance statutes could affect this:

1. That it is the intent of the insurance laws that changes in medical malpractice rates not be so great as to be disruptive and that in regulating this line of insurance the Superintendent take such reasonable steps as is possible to avoid disruption including limiting the amount that class relativities may be changed at any one time.
2. That to prevent market disruption which would be caused by the size of a proposed change in rates, the Superintendent be authorized to spread the adjustment over a period not to exceed three years, to the extent that such action does not threaten the financial stability of the insurer.

C. Steps To Improve Efficiency Of Insurers:

A large portion of medical malpractice premiums is used to pay company expenses. In fact, it is remarkable how few premium dollars are actually used to pay claims. For example, Schedule P of MMIC's 1988 Annual Statement shows that in the ten-year period ending December 31, 1988, MMIC made loss payments of \$6,185,994. In that same period, the company's expenses were almost exactly the same amount, or \$6,011,000. Historically, such expenses have been accepted in rate filings without serious challenge; however, the reasonableness of expenses should not be accepted unless the company demonstrates that it has in place an adequate program to control them. The Legislature could consider the adoption of an amendment to the Maine insurance laws to provide a requirement similar to that imposed in Massachusetts, on filings by Blue Cross Blue Shield (Mass. G.L.c. 176A, s.6) and on private passenger automobile filings (Mass. G.L.c. 175, s.113b).

That the Superintendent, on the basis of information provided in every medical malpractice filing, determine whether the company making the filing utilizes adequate programs to control costs and expenses, in accordance with standards to be determined and approved by the Superintendent. At a minimum, such programs shall be designed to have a material impact on premium charges by reducing costs and expenses. No filing shall be approved if the Superintendent determines that the filing is deficient or that the programs are inadequate.

D. Merit Rating:

Classification of risks are not necessarily limited to medical specialties. The insured can also be classified according to the degree of claims risk determined by prior claims experience. However, because there are relatively few claims payments, a merit rating system would not be likely to result in a significant moderation of rates for those in the lowest risk classifications. If it chooses to do so, the Legislature could direct the Superintendent to require merit rating plans.

E. Removing Risk from the Insurance System:

One well known way of reducing insurance rates is to make the insured share some of the risk. The use of copayments or deductibles does not reduce the risk--except to the extent that the insured is thereby encouraged to be more careful. However, such a shift of risk does make those whose actions result in claims losses pay relatively more than those without a history of such claims. Moreover, any reduction in the risk covered by insurance eliminates some of the expenses and profits built into insurance rates. Perhaps because many people are not familiar with the nature and purpose of insurance, it is frequently difficult to persuade individuals to accept part of the insurance risk even when the potential loss would not be financially embarrassing and when it would be likely to save them money. The Legislature may wish to consider mandating a minimum deductible, such as \$5,000, to remove some of the costs from the insurance system.

CONCLUSIONS:

There is an opportunity to realize savings in medical malpractice insurance premiums without causing financial injury to insurers. To obtain these saving will require a more vigorous public (regulatory) oversight of the medical malpractice insurance industry in Maine. Specifically, it will require that the Superintendent of Insurance implement existing and new powers voted by the Legislature including the development of a database of Maine's claims, settlements, and insurance practices. These data are essential if the Bureau is going to have the information

SECTION VI: MEDICAL SERVICE REFORMS

A. Medicaid Fees

B. Medical Review Provisions

necessary to carry out these functions and if the Legislature and general public are going to oversee both the Superintendent's and insurance industry activity.

Promoting efficiency is a principal role of government in a regulated industry such as insurance. To guard against inefficiency, which comes from the insurance industry practice of understating investment income, the Superintendent of Insurance should be authorized and directed to promulgate an investment income model. To guard against the present lack of incentive to control expenses, the Legislature might require that the Superintendent of Insurance mandate that insurers demonstrate an effective cost control program prior to rate increases.

To promote efficiency in the reinsurance needs of MMIC and achieve premium savings, the Legislature could direct the Superintendent of Insurance to set standards for reinsurance which, to the extent feasible, reduce dependency on outside reinsurance. Secondly, the Legislature could consider a patient compensation fund such as that suggested in L.D. 762.

To minimize disruption in the marketplace due to unstable fluctuations in the price of insurance, the Legislature could authorize the Insurance Superintendent to spread the effect of significant rate increases over a three year period. To spread the risk of claims payment and resulting increases in premiums to those policy holders responsible, the Legislature might consider implementing a merit rating system or a system of deductibles.

The insurance industry like the medical care system is based on trust that consumers give to providers. The integrity of the system demands that the income of policy holders be fully accountable and used as efficiently as possible. Actions to assure this outcome will have as much impact on the malpractice problem as reduced rates.

MEDICAID FEES

It is apparent from the literature and from the results of the physician survey that the difficulties Medicaid recipients have in obtaining medical care are due in part to the lower reimbursement fees for services to these patients compared to those insured by Blue Cross or commercial insurers. Inadequate reimbursement was the primary reason physicians gave for not treating or limiting Medicaid patients in their practices. Other factors include administrative paperwork and physician concern over perceived noncompliance of Medicaid patients. Transportation was also a problem as cited from a recent study of Medicaid recipients in Maine (USM, 1984).

While the access issue for Medicaid recipients is complex, removing the price barrier could alleviate one of its primary obstacles. It would not guarantee physician participation in the Medicaid program. However, it could act as an incentive for those already in the Medicaid program to remain, particularly Family Physicians who provide much of the obstetrical care to these patients. Since both the price of medical malpractice insurance premiums and the fear of being sued are the principal reasons physicians give for dropping obstetrics, policies aimed at reducing these could have a positive effect on access for all classes of patients including Medicaid recipients.

Since the early 1980's, states have been afforded significant leeway in running their Medicaid Programs. This gives the Legislative and the Executive Branches of government more authority in the program's structure and management. Currently the Legislature has an ongoing Commission on Access to Medical Care. That Commission could be charged with developing a plan to meet the potential access problems of Medicaid recipients for the Legislature. Developing the plan with the State Medicaid Agency (Bureau of Medical Services) and its Physician Advisory Committee on Medicaid would be advantageous.

MEDICAL REVIEW PROVISIONS

INTRODUCTION:

This section of the report describes current practices in Maine relative to improvement in the quality of medical care and subsequent reduced likelihood of malpractice incidents. It includes discussion of professional licensure, performance review, hospital policies relative to credentialing and privileges, and developing standards for care. These considerations must be put into the broader context of what is taking place at the National level which may have significant impact on Maine's medical malpractice and health care delivery problems as well as on solutions in the not too distant future.

Patricia Danzon has conducted extensive research on the 1976 tort reforms' effect on frequency and severity of claims and other outcomes. When claims began to decline in the late 1970's following the medical malpractice crisis of that period, it was her opinion and that of other experts that the reforms passed by many states had less to do with the decline than the response by the medical profession to improve peer review and other efforts aimed at preventing the number of malpractice incidents. Activities on several fronts have been implemented in Maine's health care delivery system which show promise of improving quality of care and reducing incidents of malpractice. There are several others that the Legislature might encourage.

NATIONAL CHANGES:

A recently released report, For the Health of a Nation, by The National Leadership Commission on Health Care, indicates that serious strains in the health care system "are raising the frustrations of all who participate in it. Physicians are concerned about outside parties intruding on their clinical decisions and damaging the doctor-patient relationship. Hospitals find it increasingly difficult to cope with pressures for cost containment and with rapidly changing laws and regulations. Government and major private payers are trying with limited success to control rising costs. Patients are faced with higher costs, but they don't see care improving sufficiently to justify their increasing payments--and they continue to present the system with ever-increasing demands." (National Leadership Commission on Health Care) The report also suggests that these strains will be exacerbated by the rapidly aging population in the United States, the AIDS epidemic, and the continuing technology explosion which spawns more and more new treatments, which, though often beneficial, are also costly.

The National Leadership Commission sets forth a strategy to address these serious health care problems, problems which they deem unnecessary since the United States has the knowledge to solve them now. There will always be some art and some uncertainty in the medical profession since science expands continually into new areas and because each patient presents a unique set of problems. That is also precisely why it is not

possible at this time to delineate hard-and-fast rules to which physicians must adhere without seriously restricting the delivery of health care in this country.

PHYSICIAN LICENSURE:

The Board of Registration in Medicine is responsible for new licensing of allopathic physicians in Maine and ensures that minimal training standards and qualifications are met. A 60-90 day background check on training and experience is made on all applicants. All hospitals where privileges were reported by applicants are independently contacted by the Board to confirm these reports. The Board also requests that applicants disclose hospital privilege reduction/revocations which may have taken place in other states.

The Board requires all physicians licensed in Maine (5,900 of whom 2,100 currently practice in Maine), at every biennial re-registration, to report under penalty of license revocation any malpractice paid claims against them since the preceding registration. These reports are subject to review by the Board and investigated through contact with the malpractice insurance company by the Executive Director. Reports which are deemed by the Board as not due to negligence or incompetence are designated on a consent list as such. Those potentially due to negligence or incompetence are referred to the Attorney General's office for investigation. A similar review is made of all claims paid notices received by the Board from other sources.

The Board maintains files of qualitative data from a variety of sources which are subject to similar review. These include reports submitted by hospitals and individual physicians received

under their respective obligations to report suspected impaired physicians, mandatory hospital reports of reductions or revocation of privileges (voluntary reductions need not be reported), and reports of incidence or notice of establishment of reserve accounts by malpractice insurers. In addition, consumer complaints (15-20 per Board meeting) are reviewed for possible action. Other more subjective reports from informal sources are also filed. Action can only be undertaken in response to legally-mandated requirements or when sufficient evidence is available to warrant review by the Board for possible recommendation to the Attorney General's office for investigation.

The Board of Osteopathic Examiners and Registration is responsible for licensure and relicensure of osteopathic physicians in Maine. Initial licensure procedures are similar to those described for allopaths with checks of past education, training, and experience done routinely based on information not only from the applicants, but prior institutions as well. There are currently 400 osteopathic physicians licensed in Maine and 270 who are actively practicing in the State according to the Board's Executive Secretary. Relicensure of osteopaths is

required yearly and reportedly close attention is paid by the Board of Examiners to any reports received relative any physician who has been disciplined, suspended, or had privileges curtailed or revoked. The Board has remedial action available at the Attorney General's Office if further investigation is required.

Changes in the medical malpractice liability law passed in 1986 by the Maine State Legislature (PL 1986 C.804) required the State Superintendent of Insurance to send notice of all first dollar claims paid by any carrier to the Boards. The Boards must review any physician who has three such claims in ten years. The Executive Director of the Board of Registration in Medicine indicated that this practice has been followed since 1978. Out of the 230 settled/awarded malpractice cases reported since 1978 against allopaths, only seven have been reviewed under this mechanism since 1980. Five were prior to or during 1986; the two more recent cases are pending. All five closed cases have resulted in loss of license to practice in Maine either through voluntary withdrawal or administrative court procedure. Specific data are not available relative to osteopathic practitioners; however, indications are that the numbers are very small and would follow the allopathic trend. It does not appear that rates of physician review have increased since the reforms of 1986.

These data also suggest that speculation by some (FAIR, 1988) that a small number of physicians are responsible for most of the cases may not be true in Maine since only seven out of approximately 3,000 physicians who have practiced in Maine during this period have had three or more claims in ten years resulting in monetary settlements. Most of this speculation is based on calculations of total money awards. A few very large cases settled against a few physicians account for most of the total monetary outlay. For example, a Washington Post study quoted by FAIR in 1988 stated that 1% of Maryland's physicians insured by its largest malpractice carrier were responsible for 54% of paid claims and legal costs. Since very large claims against a few physicians (at one case each) could account for a large proportion of the total amount, such analyses do not address the bad-apple hypothesis. Multiple claims settled against individual physicians do not appear to be the most effective indicators for identifying those most at risk for malpractice suits.

There is misunderstanding of many of the differences between malpractice settled/awarded claims and actual negligent or incompetent physicians. The Boards have no power over the volume of malpractice suits and cannot formally act until allegations result in paid claims. While the Board's Executive Director had no suggestions for changes in the Board's current oversight rules or procedures that would result in changes in malpractice suits, filed or settled, other members of the Board suggested that there could be changes to improve the Board's ability to gather other information, such as requiring hospitals to report "Failures to Renew" privileges and encouraging other health care personnel (nursing and other staff) to report incidents to the Board.

There is a general concern about defensive medicine and its relationship to access, overall cost of care, and its limited impact on malpractice suits. This concern may be germane to practice standards as well. One action taken by other states has been to require notification to the Board of licensure of voluntary withdrawals, under threat of disciplinary action, as well as administrative reductions/revocations of hospital privileges. This may be a loophole which allows physicians to relocate and resume practice which would be impossible at the previous location.

OPTIONS FOR STRENGTHENING PHYSICIAN LICENSURE:

The method used by Maine in structuring its professional licensing boards is to rely on the Attorney General's office for investigatory and disciplinary actions. Some Board members feel this restricts the Board to statutory legal responses to evidence brought to its attention by the Superintendent of Insurance, hospitals, consumers, and individual physicians rather than permit it to actively search and review for incompetence. Regardless, some restructuring might be considered to permit the Board to play a more active role.

The 1986 medical malpractice liability reforms allowed the Board of Registration in Medicine to increase dues in order to create a more active investigative staff as some other states have done. This apparently has not yet happened. L.D. 1407 (which is currently under consideration) is designed to address this concern mandating a budget to include funding for one full-time investigator in the Attorney General's office per 1,000 medical doctors. Relatively few consumer complaints appear to be handled by the Board.

A potential consideration would be to create an Ombudsman's Office to investigate consumer concerns. All consumer inquiries throughout the State could be handled through that office, and perhaps reduce the number of suits filed. (It is also possible, however, that this process could do exactly the opposite.) This office could provide an additional source of data when reviewing complaints about individual physicians. Such an office would require an (800) telephone number, appropriate public education, and more staff, but could provide an early warning system regarding physicians at high risk for future malpractice suits. The Board would need some mechanism to ensure appropriate medical input regarding the investigative procedures such as awareness of confidential nature of physician/patient relationship. Some features of this recommendation are included in L.D. 1407, but not the toll-free 800 number.

Secondly, qualitative data reviews by the Boards of Licensure could be formalized through the development of written guidelines for collection and use of these data. Regional physician teams might be established to contact physicians reported or suspected of substance abuse problems even in the absence of actual malpractice evidence. Such activities may happen on an informal basis now, but no guidelines are used.