MEDICAL MALPRACTICE INSURANCE IN THE MASSACHUSETTS MARKET

A report to the Joint Committee on Financial Services, Joint Committee on Health Care Financing the Senate Committee on Ways and Means,and House Committee on Ways and Means of the Massachusetts General Court,and the Secretary of the Commonwealth

December 31, 2008

NONNIE S. BURNES

COMMISSIONER OF INSURANCE

Acknowledgements

This report was prepared by Kevin Beagan, Gerald Condon, Caleb Huntington, Cara Blank, Matthew Mancini and Walter Horn, staff from both the Health Care Access Bureau and State Rating Bureau within the Division of Insurance ("Division") - to examine the market for medical malpractice insurance in Massachusetts. This report was developed to respond to section 39 of Chapter 305 of the Acts of 2008 which states:

"Notwithstanding any general or special law to the contrary, the division of insurance shall conduct an investigation and study of the costs of medical malpractice coverage for health care professionals, as defined in section 193U of chapter 175 of the General Laws. The investigation and study shall include, but not be limited to, an examination and analysis of the following:

(1) the availability and affordability of medical malpractice insurance;
(2) the factors considered by medical malpractice insurers when increasing premiums;
(3) options for decreasing premiums including, but not limited to, establishing a reinsurance pool with additional stop loss coverage, subsidizing premium payments of providers practicing in certain high-risk specialties or in specialties for which the cost of premiums represents a disproportionately high proportion of a health care professional's income, subsidizing premium payments of providers who do not qualify for group coverage rates and pay higher premiums for commercial market insurance and prorating premiums for providers who practice less than full-time; and
(4) funding mechanisms that would facilitate the implementation of recommendations arising out of the study which may include, but shall not be limited to, charges borne by the health care industry or other entities.

The division shall hold at least 2 public hearings to take testimony relating to the investigation and study, 1 of which shall be held outside the metropolitan Boston area. The division shall report its findings and recommendations to the clerk of the house of representatives who shall forward the same to the house and senate committee on ways and means and the joint committee on health care financing on or before January 1, 2009."

In the financial section of the report, the Division has taken care to check the completeness and consistency of financial data reported by insurance companies, but does rely on the insurance

companies, the National Association of Insurance Commissioners and other regulatory agencies for the accuracy of all reported information.

Within others sections of the document, the report looks at proposals to address medical malpractice and the pros and cons of each without making any specific recommendation on any proposal.

TABLE OF CONTENTS

Included Figures

Executive Summary

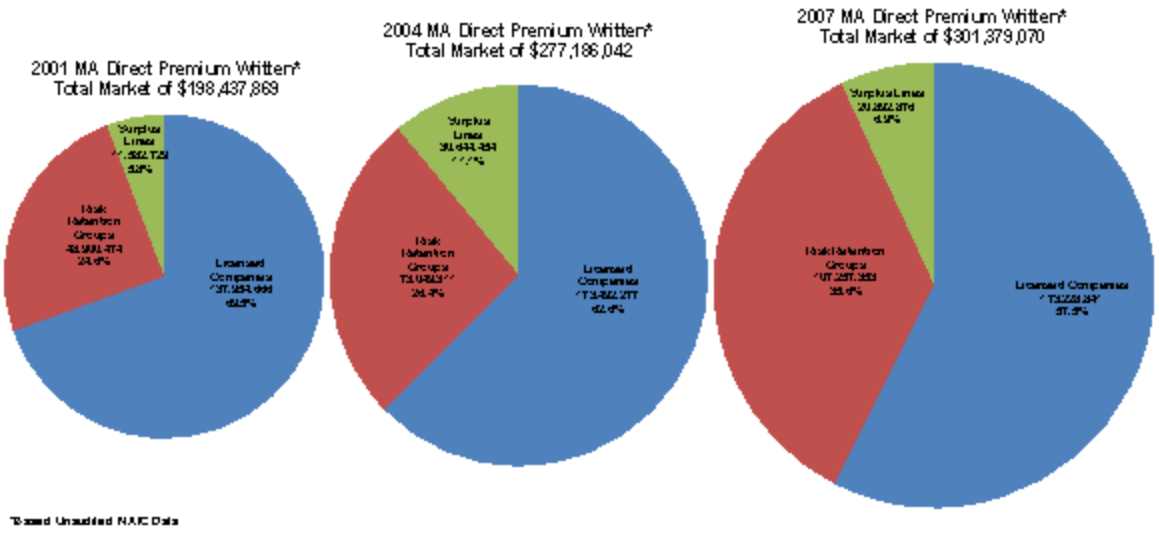
Health care professionals make daily decisions about treatment where they balance the need to use new procedures with the need to avoid errors that may harm patients. When an error may have occurred and malpractice is claimed, medical malpractice insurance covers the cost to defend professionals and pay claims for damages.

Massachusetts law requires that doctors have medical malpractice coverage [1] and that insurance companies make medical malpractice coverage available on an equal basis to all doctors and certain other licensed healthcare providers willing to pay for it. [2] Despite the availability of coverage, some have indicated that the cost of coverage is forcing them to think about dropping their practices or moving to other states to practice.

Among the material presented in this report:

- Total Massachusetts medical malpractice premiums increased from $198 million in 2001 to $301 million in 2007; an increase of over 50% in six years. Risk Retention Groups account for 10% more of the market in 2007 than in 2001.

Total Market 2001, 2004, 2007



During the first half of the 2000's, the market for medical malpractice coverage was in disarray nationally and in Massachusetts. National companies were dropping coverage and others were filing for double digit rate increases. Over the past few years, Massachusetts medical malpractice insurers' net operating ratios - company expenses compared to premiums - declined from 149.5% in 2001 to 84.3% in 2007, fewer companies left the market and average rates increased only gradually.

- There have been many unstable periods over the past thirty-five years in medical malpractice. Many are looking at the reasons that claims and defense costs, administrative expenses, reinsurance costs and investment returns impact the overall cost of medical malpractice coverage to eliminate the periods of instability. Since projected trends in malpractice claims have a great impact on cost, many are looking at ways to address the frequency (number) and severity (size) of medical malpractice claims by looking at the following types of changes:

  - Improving communications between patients and health care professionals to improve trust, reduce unreasonable expectations and avoid lawsuits;

  - Shifting malpractice risk to enterprises - *e.g.*, hospitals and health plans - because systems problems are responsible for many medical errors.

  - Changing the tort system - *e.g.*, limiting medical malpractice awards and establishing new procedural tort standards - to reduce unnecessary lawsuits;

  - Preventing medical errors - *e.g.*, disclosing all medical errors and establishing medical standards of care - to reduce patient injuries; and

- Certain specialties (*e.g.*, obstetrics and gynecology) have higher claims and higher premiums than do other specialties. Some are looking at ways to temper these specialties' premiums to by looking at the following types of changes:

  - Increasing other providers' premiums to subsidize high-risk providers' premiums;
  - Assessing other insurers' to subsidize high-cost providers' premiums; and
  - Establishing limited no-fault systems to review claims for high-cost providers.

  The Division of Insurance finds that medical malpractice is complicated and much debated without easy solutions. More research is needed to assess the proposed ideas in relation to the workings of the Massachusetts health care delivery system to evaluate the best course of action and the projected costs of those actions.

Massachusetts' Health Care Professionals

Number of Professionals
In 2006, there were over 225,000 individual health care professionals licensed by state agencies to practice in the following licensing categories: [3]

130,283	Nurses
21,599	Social Workers
20,740	Medical and Osteopathic Doctors
8,273	Allied Health Providers (Therapists and Athletic Trainers)
6,925	Dentists
5,466	Allied Mental Health Providers

5,183	Psychologists
4,497	Audiologists and Speech Pathologists
3,284	Respiratory Care Specialists (full and limited licenses)
2,145	Chiropractors
1,956	Dietitians/Nutritionists
1,820	Dispensing Opticians
1,692	Physician Assistants
1,484	Optometrists
950	Acupuncturists
569	Podiatrists
155	Hearing Instrument Specialists

130 Certified Health Officers

98 Perfusionists (full and provisional licenses)

In addition to the above-noted individual professionals, there were almost 1,400 facilities and programs licensed to operate under the following types of entities: [4]

533 Nursing Homes/Assistant Living Residences/Rest Homes

250 Clinics

188 Home Health Care Agencies

177 Mammography Facilities

132 Hospitals (acute care, psychiatric and rehabilitation)

56 Ambulance services

53 Hospices

In order to practice in the Commonwealth of Massachusetts, a health care professional must be licensed or registered by agencies such as the Board of Registration in Medicine, [5] the Division of Professional Licensure, [6] Boards of Registration, [7] the Department of Mental Health [8] or the Department of Public Health. [9] A health care professional may also need to satisfy additional training to represent that he or she is specially trained or board-certified in a specialty and may need to meet other requirements to practice in a hospital or to be included in a health plan network.

Liability Coverage Requirements

Almost all working professionals have professional liability coverage to protect them from claims for damages if work is not completed according to agreed-upon standards or expected outcomes. Health

care professional require special liability coverage because they treat living bodies without the same types of expected outcomes. Even when a health care professional's decision may be correct based upon available information, there can be bad outcomes with long-term financial consequences. This liability coverage pays the cost to defend the health care professional's reputation and cover the potential cost of damages.

In Massachusetts, companies that offer medical malpractice insurance are required to make coverage available on a "take all comers" basis - without declining the coverage of any one professional - for all who fall within the following statutorily identified categories whenever that insurance company is making coverage available to anyone else who is in that category:

Doctor of Medicine;
Doctor of Osteopathy;
Doctor of Dental Science;
Doctor of Podiatry;
Doctors of Chiropractic;
Registered Nurses, licensed under the provisions of M.G.L. c. 112;
Interns, fellows or medical officers; and
Licensed hospitals, clinics, or nursing homes, and their agents and employees. [10]

All other health care professionals outside the statutorily identified categories may apply for coverage with insurance companies, but the company has the right to decline coverage for these other health care professionals if they do not meet the insurer's underwriting standards.

It is a specific requirement of licensure that medical doctors have medical malpractice coverage sufficient to protect against claims of at least $100,000 per occurrence and $300,000 per year [11] and that chiropractors are required to have coverage of at least $500,000 per occurrence and $1.0 million per year. [12] Hospitals and health plans may impose additional requirements to permit health care professionals to practice in the hospital or to be part of a health plan network.

Market for Medical Malpractice Coverage

History

Medical malpractice insurance has gone through a number of national and regional "crises" over the past 35 years, with years of stability and available coverage, followed by years of rate increases and decreased coverage. Following the departure of a number of medical malpractice insurers from the Commonwealth in the 1970s, the Massachusetts Legislature created the Medical Malpractice Joint Underwriting Association (MMJUA) to offer access to coverage for certain medical professionals and authorized the MMJUA to assess other medical malpractice carriers for certain losses. [13]

During the 1980s, the medical malpractice insurance industry developed new types of policies to stabilize losses and premiums. While policies written before the change were "occurrence-based" policies (covering all claims filed for an incident that occurred during a coverage year), many insurers switched to "claims-made" policies (covering only claims filed during a coverage year. [14] Since losses under claims-made policies are more predictable, the new products enabled companies to stabilize their rating practices. [15]

In 1994 Massachusetts passed legislation to transform the MMJUA into the Medical Professional Mutual Insurance Company ("ProMutual") with a board composed mainly of practicing or retired healthcare providers [16]Since its inception, ProMutual has been the one of the largest medical malpractice insurance companies and few companies have entered the Massachusetts market. [17]

Licensed Insurance Companies

Medical malpractice insurance companies must be licensed by the Division of Insurance with a designation for medical malpractice insurer and are required participants in the state's guaranty fund to

protect policyholders in the event of an insurer's insolvency. Medical malpractice is a specialized coverage accounting for $173.2 million in direct written premium which is about 1.6% of all property and casualty coverage. (Figure 1)

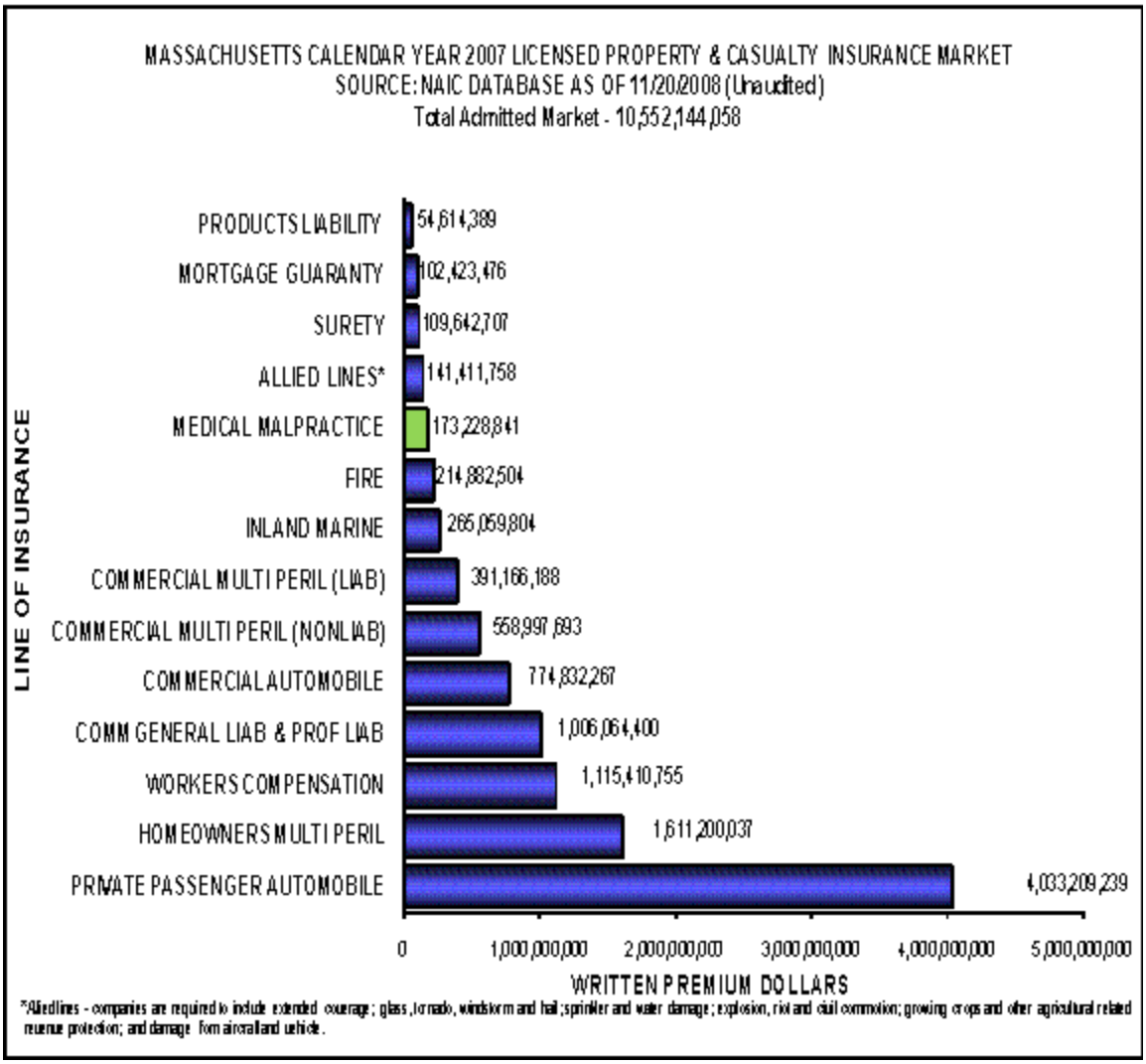


Figure 1

The Division of Insurance maintains a list of medical malpractice insurance companies on www.mass.gov/doi/consumeridentifying the "take all comers" classes of health care professionals written by the company. The list of licensed insurance companies writing medical malpractice coverage in 2007 is in Appendix A-1 on page 39.

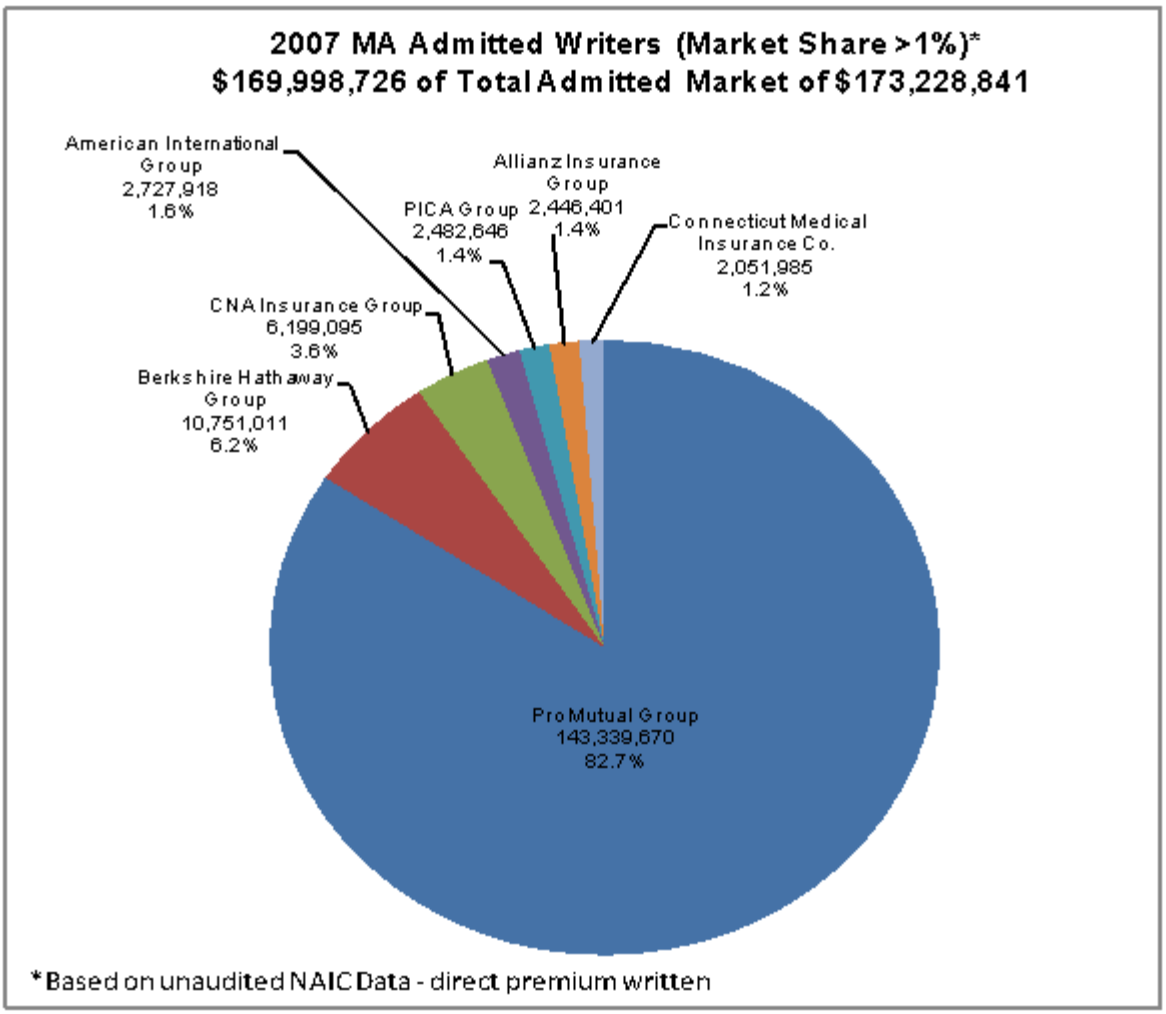


Figure 2

The ProMutual Insurance Group - composed of Medical Professional Mutual Insurance Company and ProSelect Insurance Company - had the predominant share of the 2007 insurance market collecting approximately 83% of total premium. (Figure 2)

Surplus Lines Carriers

Separate from the licensed insurance companies, health care professionals may also turn to surplus lines carriers for medical malpractice coverage. Surplus lines carriers are not licensed in Massachusetts but are licensed as an insurer in another jurisdiction and can issue coverage through specially licensed brokers to those who cannot obtain coverage from insurers licensed to do business in Massachusetts. Surplus lines carriers are not subject to state insurance law - such as the "take all comers" requirements - and do not participate in Massachusetts's guaranty fund. The Division maintains a list of surplus lines carriers on www.mass.gov/doi/consumer. The list of surplus lines carriers writing medical malpractice coverage in 2007 is in Appendix A-2 on page 40.

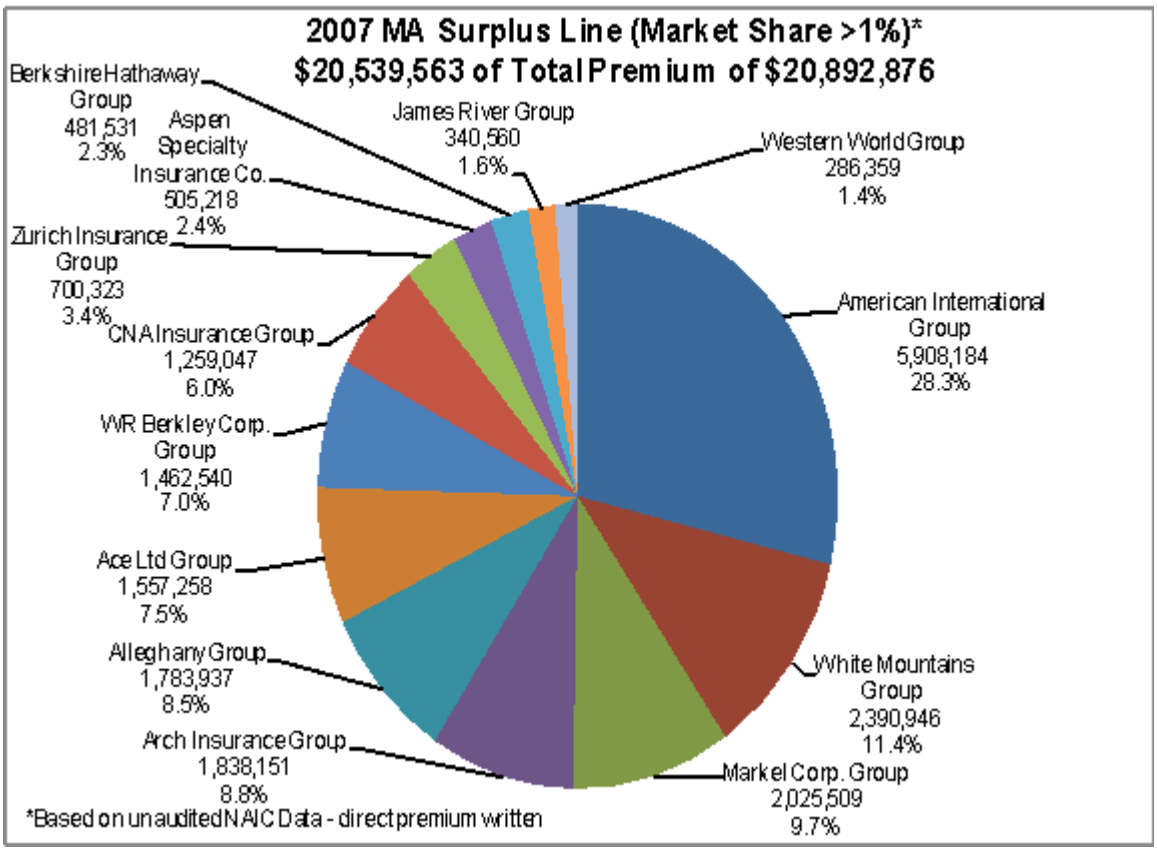


Figure 3

The largest surplus lines medical malpractice carriers are the American International Group (includes Lexington Insurance Company) and White Mountains Group, accounting respectively for 28.3% and 11.4% of the 2007 medical malpractice surplus lines market. (Figure 3)

Risk Retention Groups

Separate from both insurance companies and surplus lines carriers, medical malpractice coverage may also be offered through Risk Retention Groups (RRG) which under federal law [18] may offer liability coverage in any state provided the RRG is licensed as an insurance company in at least one state. RRGs are specifically exempted by federal law from participation in state guaranty funds and are not subject to the "take all comers" requirements that apply to licensed insurance companies.

Under federal law,

1. An RRG can be formed and owned only be members who are engaged in a similar business or activity and with similar liability risk exposure; and.

2. An RRG cannot exclude eligible members solely to reduce the RRG's risk of loss.

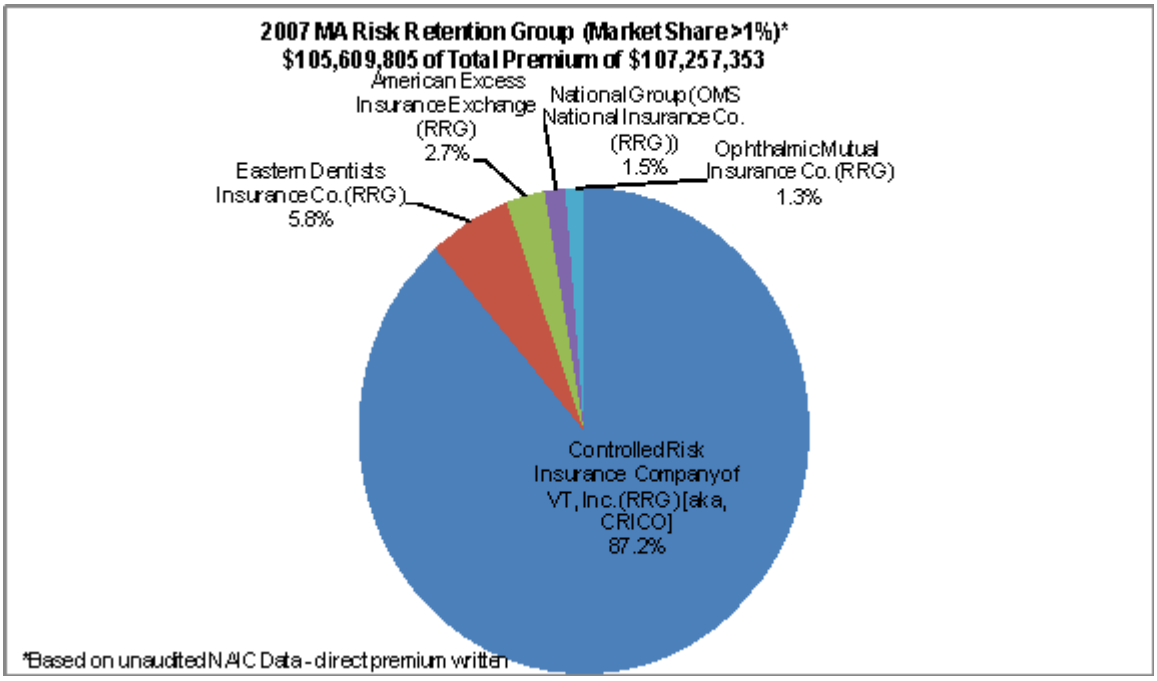


Figure 4

The Controlled Risk Insurance Company of Vermont RRG - also known as CRICO - has the predominant share of the RRG medical malpractice market collecting over 87% of premium in 2007. CRICO was created in 1979 to provide professional liability coverage to the physicians and employees of Harvard-affiliated medical institutions. [19]According to CRICO's business plan, physician applicants must meet CRICO underwriting criteria and are assigned to one of 80 underwriting specialties based on level of risk exposure.

Each of the 4 next largest RRGs collectively account for about 10% of the market, and some of them write coverage for specialty providers. The list of RRGs who were writing medical malpractice coverage in 2007 is in Appendix A-3 on page 41.

Shares of the Market

During 2007, the different carriers together wrote $301.4 million of medical malpractice premium with 57.6% written by insurance companies, 35.6% written by RRGs and 6.9% written by surplus lines carriers. (Figure 5)

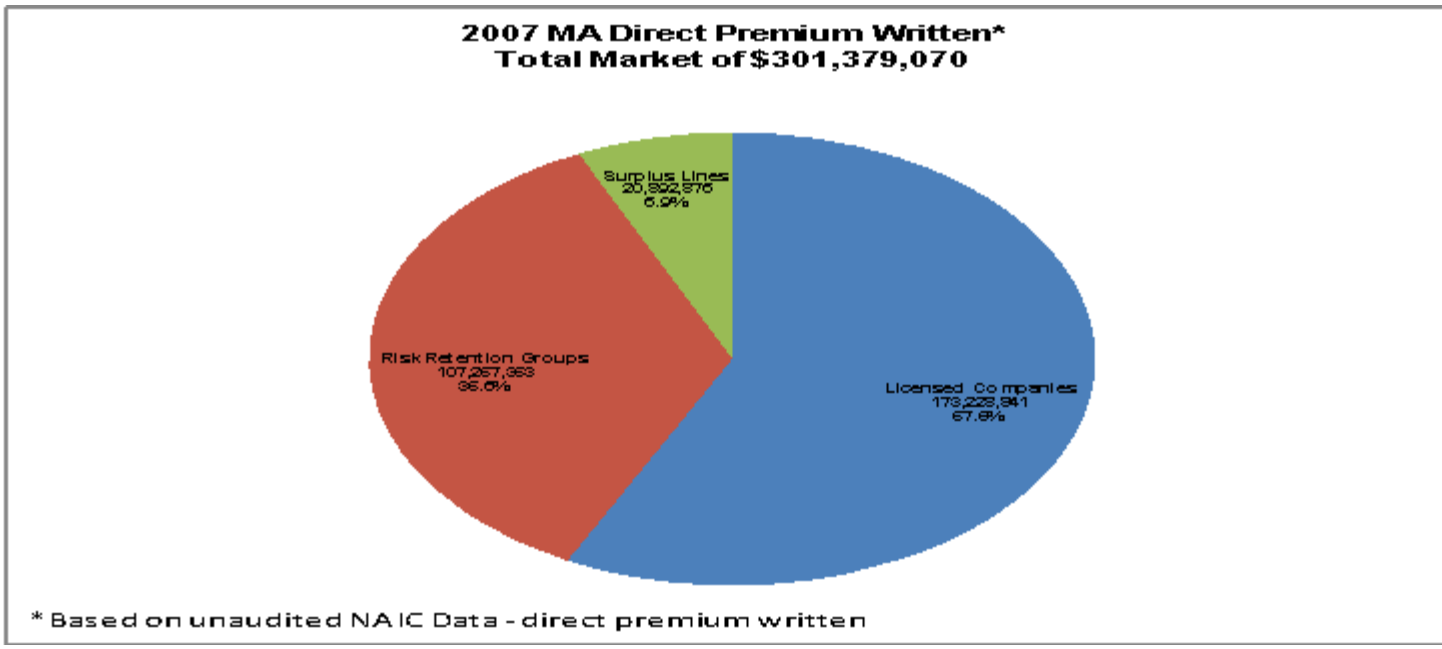


Figure 5

This distribution changed since 2001 when 69.5% was written by insurance companies, 24.6% was written by RRGs and 5.8% was written by surplus lines carriers. (Figure 6)

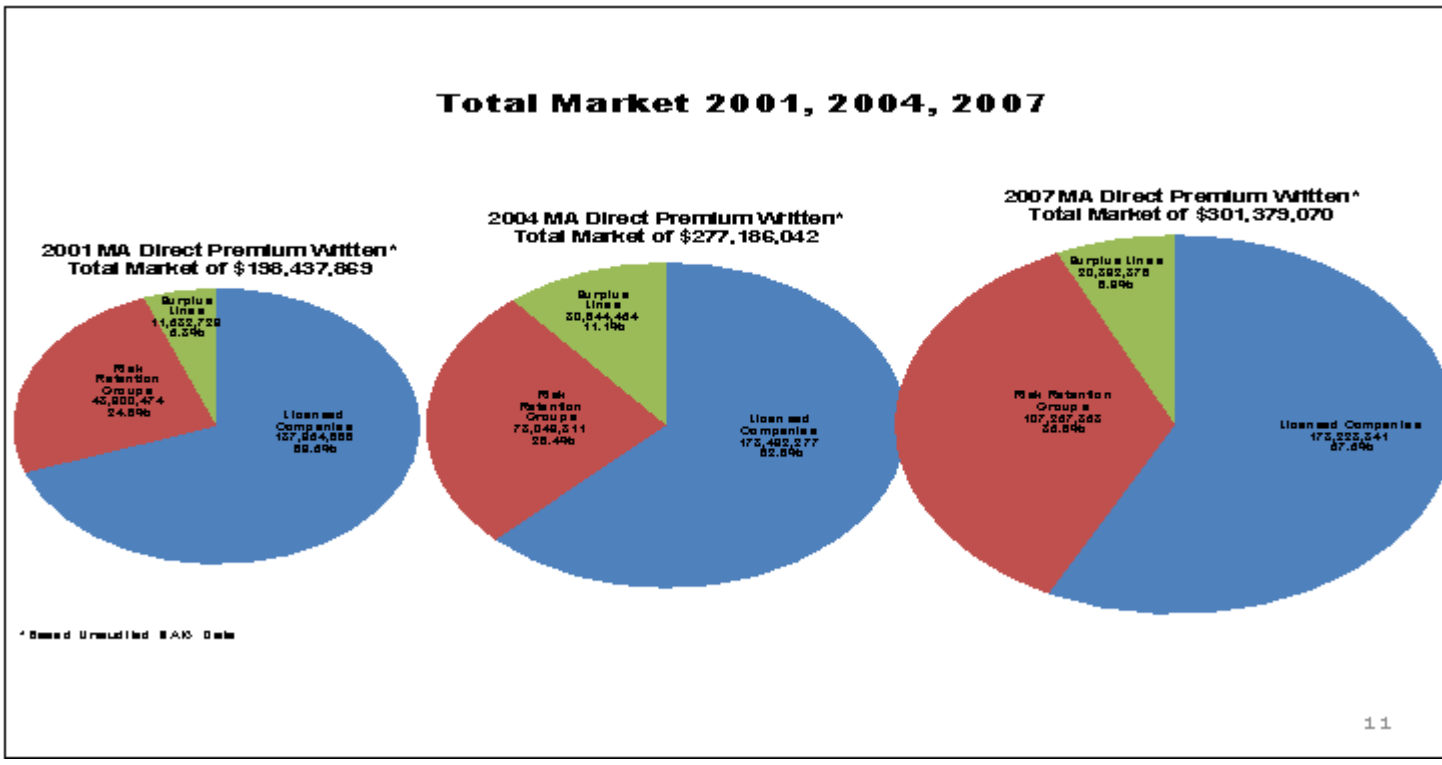


Figure 6

Financial Results for Insurance Carriers

Premiums

The $307.1 million earned in 2007 by insurance companies, surplus lines carriers and RRGs was 11.9% more than the $274.4 million earned in 2004 and 67.9% more than the $182.9 million earned in 2001. (Figure 7)

On an industry basis, licensed insurance companies earned $175.2 million in premiums in 2007 - 2.0% higher than the $171.8 million earned in 2004 and 37.7% more than the $127.2 million earned in 2001. RRGs earned $107.4 million in 2007 - 48.1% higher than the $72.5 million earned in 2004 and 121.4% more than the $48.5 million earned in 2001. Surplus lines carriers earned $24.5 million - 16.6% less than the $30.1 earned in 2004 and 240.3% more than the $7.2 million earned in 2001. (Figure 7)

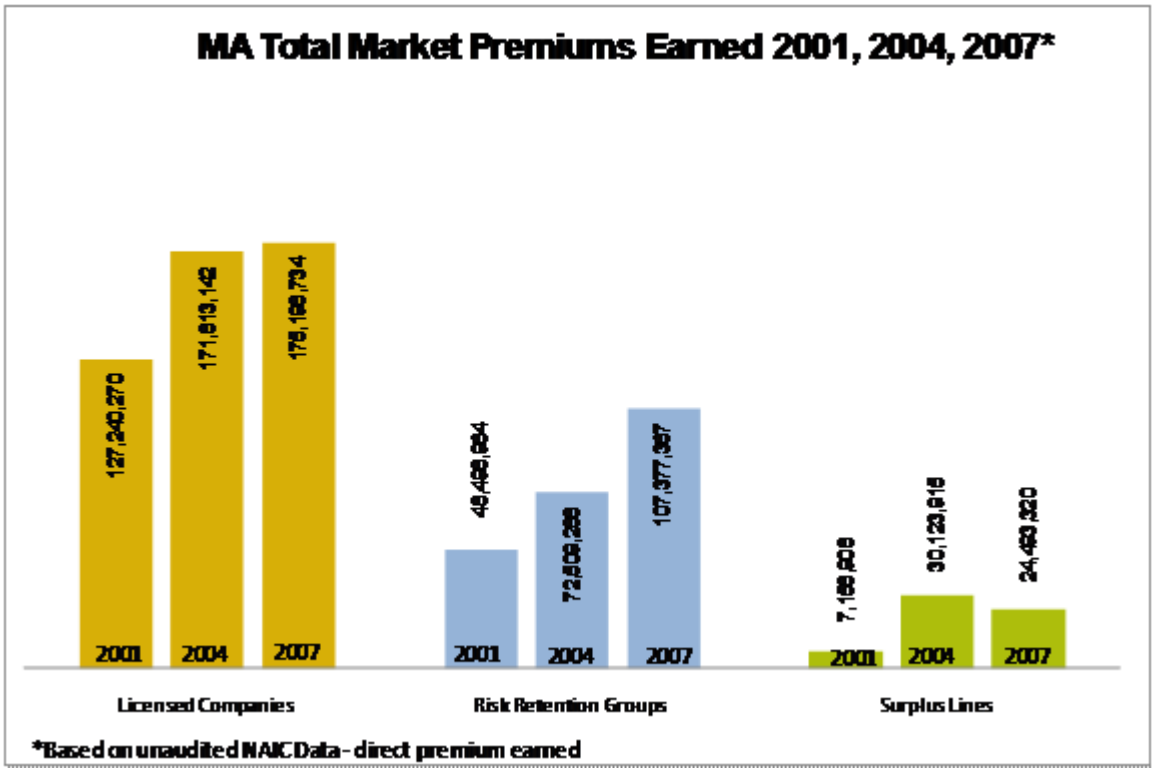


Figure 7

Costs

When setting premiums, companies need to account for projected medical malpractice claims, as well as loss adjustment expenses (designed to settle or defend claims), general administrative expenses, producer commissions, and reinsurance expenses. Claims dollars are important drivers of overall costs, but examining claims dollars on financial reports may not present a true picture of losses to compare with company premiums. In Massachusetts medical malpractice claims are resolved 6 years [20] following the malpractice incident. Reported losses may be associated with premiums that were collected 6 years ago.

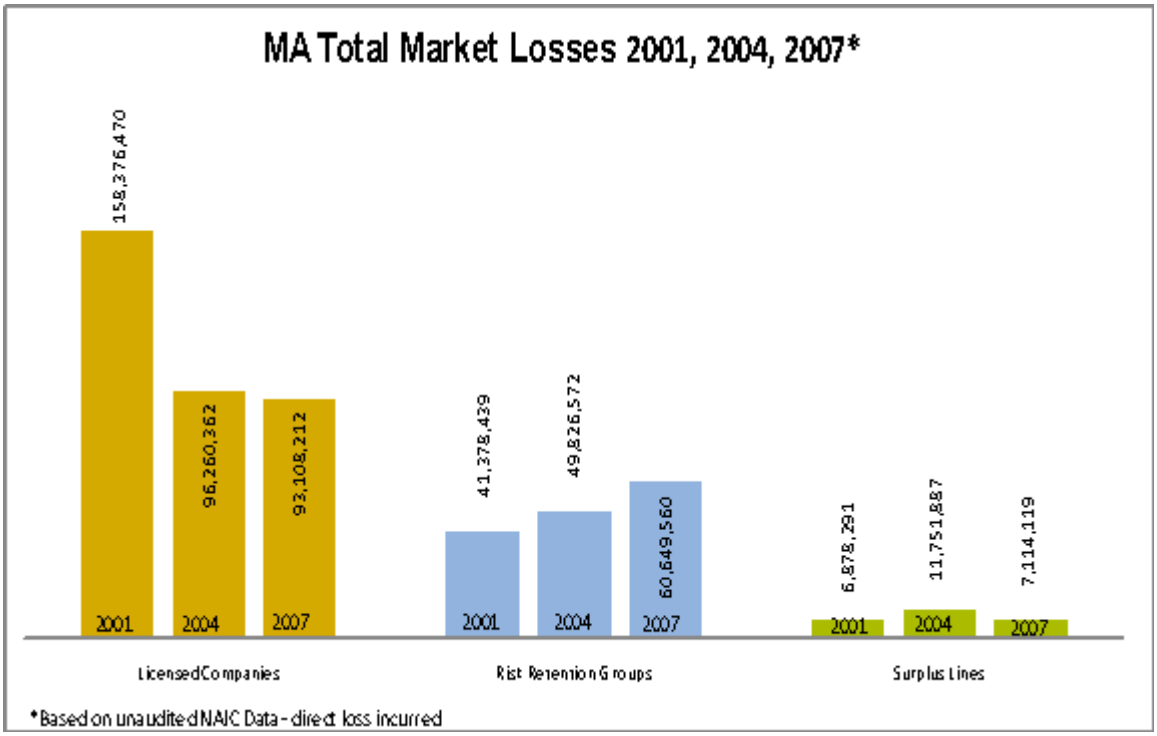


Figure 8

Massachusetts licensed insurance companies reported total claims losses of $158.4 million in 2001, greater than the $127.2 million collected in premiums.

On an industry basis, licensed insurance companies had incurred claims - those amounts that were reserved for claims that were open in the current year as well as amounts paid out for claims during a year - of $93.1 million 2007 - 3.4% less than the $96.2 million incurred in 2004 and 41.3% less than the $158.4 million incurred in 2001. RRGs incurred $60.6 million in 2007 - 21.4% higher than the $49.8 million incurred in 2004 and 46.1% more than the $41.4 million incurred in 2001. Surplus lines carriers incurred $7.1 million in claims - 39.4% less than the $11.8 incurred in 2004 and 3.4% more than the $6.9 million collected in 2001. (Figure 8)

Loss Ratios

Many use loss ratios (incurred losses divided by earned premium) to predict the underwriting success or failure of property insurance companies and assume that the lower the loss ratio, the higher the company's profit

The calculated loss ratios for Massachusetts medical malpractice companies (licensed insurers, RRGs and surplus lines carriers) declined from 113.0% in 2001 to 52.4% in 2007. The loss ratios on a national basis for all medical malpractice companies declined from 100.4% in 2001 to 41.6% in 2007. (Figure 9)

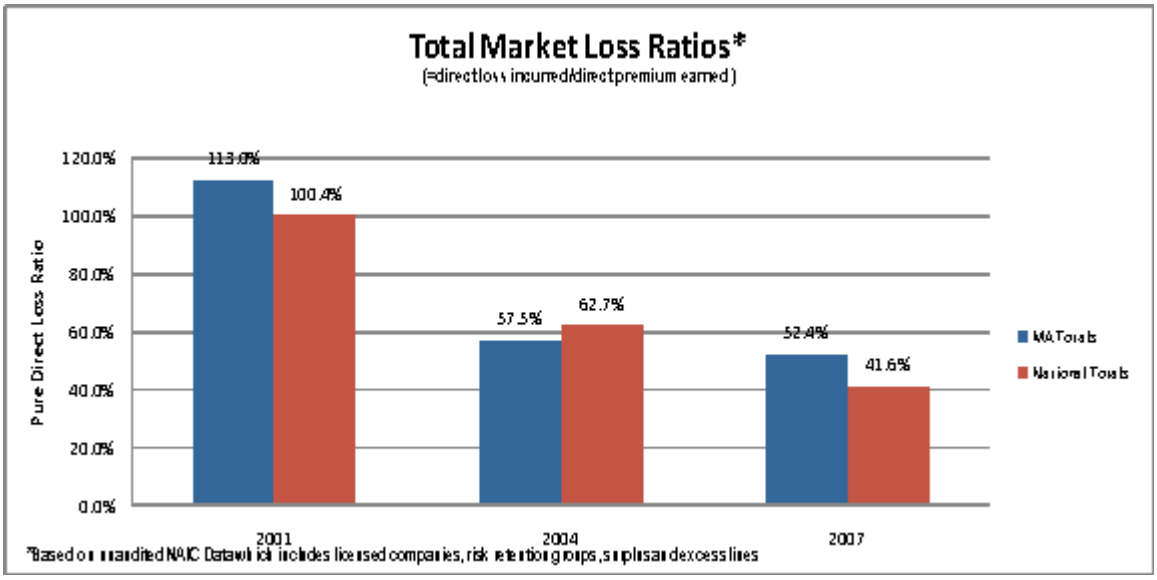


Figure 9

When examining each of the types of medical malpractice carriers in Massachusetts, the loss ratios decline for each. The licensed insurance companies' loss ratios declined from 124.5% in 2001 to 53.1% in 2007. The RRGs' loss ratios declined during this period from 85.3% in 2001 to 56.5% in 2007. The surplus lines carriers' loss ratios declined from a 96.1% in 2001 to 29.0% in 2007. (Figure 10)

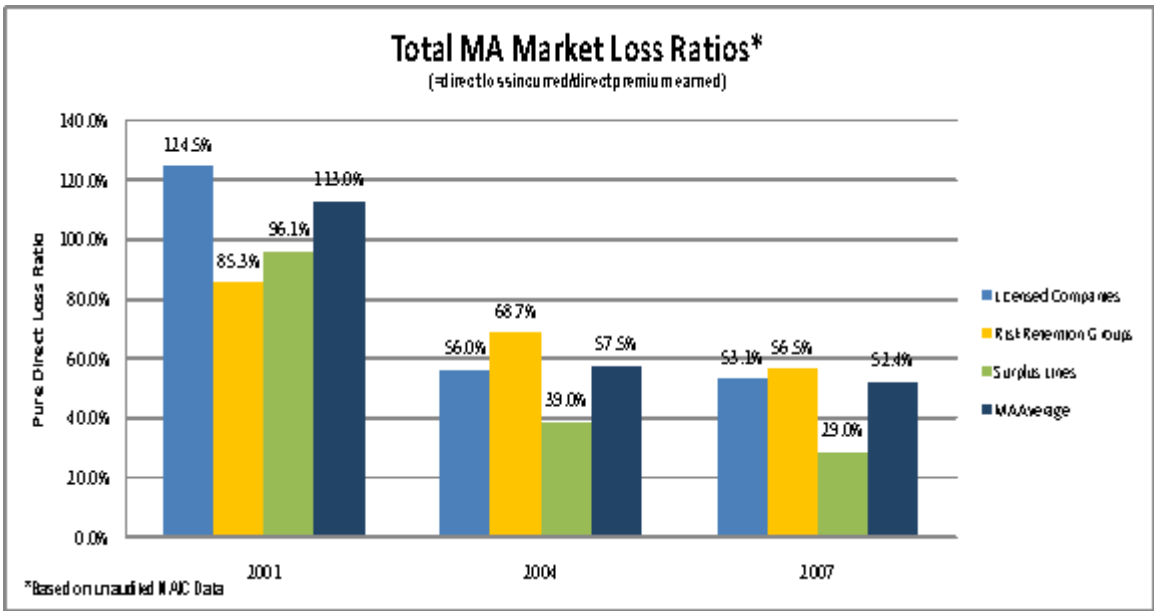


Figure 10

Combined Ratios and Operating Ratios

An adjusted combined ratio (the combination of company expenses and incurred claims divided by earned premium) can be a more effective measure of the overall experience of a property and casualty insurance company since it factors in other costs required to run an insurance company, including loss adjustment, acquisition and general expenses, as well as the costs of taxes, licensing fees, and mutual fund dividends.

Since companies do not report company-by-company expense experience, the following table - Figure 11 - derives general and other expenses based on aggregate reported financial information for licensed insurers - not including the RRGs and surplus lines carriers. The adjusted combined ratio with dividends calculation - column (L) - presents a more complete picture of company experience in the medical malpractice market. While the loss ratio for 2007 was 53.1%, the net operating ratio was 105.8%.

Calculation of Adjusted Combined Ratios -- Licensed Companies

	(A)	(B)	(C) = (B)/(A)	(D)	(E)= (D)/(A)	(F)	(G) = (F)/(A)	(H)	(I)	(J)	(K)	(L)= (G+H+I+J+K)	(M)	(N)= (L)-(M)
Year	Earned Premium ($000s)	Direct Losses Incurred ($000s)	Loss Ratio	Incurred Losses + ALAE[2] ($000s)	Inc. Loss + ALAE Ratio	Incurred Losses + LAE[1] ($000s)	Incurred Losses + LAE Ratio	Commissions[3] + Other Acquisition Expenses[2]	Taxes and licensing Fees[3]	General Expense[2]	Mutual Company Dividends[3]	Combined Ratio w/ Dividends	Net Invest. Income Ratio[4]	Net Operating Ratio
2007	175,199	93,108	53.1%	140,040	79.9%	149,264	85.2%	11.0%	2.3%	6.3%	1.0%	105.8%	21.5%	84.3%
2004	171,813	96,260	56.0%	139,754	81.3%	147,634	85.9%	11.3%	3.2%	4.0%	1.0%	105.5%	23.7%	81.8%
2001	127,240	158,376	124.5%	181,135	142.4%	189,661	149.1%	12.0%	3.0%	7.3%	10.4%	181.7%	32.2%	149.5%

[1] "ALAE" represents allocated loss adjustment expenses (defense and cost containment expense). "LAE" represents all loss adjustment expenses.

[2] Percentages are calculated using countrywide date from A.M. Best's Aggregates and Averages.

[3] Percentages are calculated using Massachusetts "Page 14" Annual Statement data.

[4] Investment Income by line less investment expense. Source: A. M. Best's Aggregates and Averages

Figure 11

Figure 11 includes one more calculation to derive a net operating ratio that is more reflective of medical malpractice insurance experience. Since medical malpractice is considered a "long-tailed line" where payments may not be made for many years after a claim has been filed, the net operating ratio considers the net investment income on reserves held to pay future claims. As illustrated in column (N) of Figure 11 when factoring in the net investment income ration, the net operating ratio for licensed medical malpractice insurers was 149.5% in 2001, 81.8% in 2004 and 84.3% in 2007.

The above analysis does not reflect the net cost of reinsurance because this information is not readily available within the aggregate financial statements for Massachusetts medical malpractice business. Based upon industry information, reinsurance is estimated to account for an additional 2-5% of a company's premiums. [21]

Premiums for Medical Malpractice Coverage

Factors Affecting the Cost of Coverage

Insurance company actuaries develop premiums to pay future expected claims losses and expenses, while also meeting company profit expectations and staying competitive with other insurance companies.

Claims

Actuaries examine prior losses and loss adjustment expenses to estimate trends in both frequency (the number of lawsuits filed) and severity (average claims payments per claim. Projecting future losses for medical malpractice is complicated because in such a "long-tailed line," claims may not be settled for 5-7 years after an initial claim is filed. [22]

Defense Costs

Medical malpractice claims may involve substantial legal costs to investigate and defend health care professionals from alleged negligence. Actuaries factor in projected cost of legal work leading up to and including the trying of a case.

Acquisition Costs, General Administrative Expenses and Taxes
In the course of doing business, companies pay commissions to producers (*i.e.,* agents or brokers) to acquire business, general administrative expense to operate their businesses and premium taxes and assessments.

Dividends
Insurance companies that are owned by investors (stock companies) or by policyholders (mutual companies) share their surpluses with their owners through dividend distributions. The level of dividends depends on ownership's expectations of surpluses.

Reinsurance
Medical malpractice insurance carriers protect themselves from the financial risk of severe medical malpractice claims by purchasing reinsurance. This will vary based upon the availability of reinsurance and the risk of the reinsured coverage.

Investment Returns
Medical malpractice insurers depend on investment earnings on claims reserves to pay future claims. When investment returns are expected to decrease, the company needs to collect more in premium to attain an adequate level to pay future claims.

Risk Classifications
Carriers develop different risk classes and rates for medical specialties based on prior and expected loss experience. The classifications of risk must be reasonable and developed based on sound actuarial principles.

Reasons for Rate Increases in the Early 2000s

Some claim that "perfect storm" conditions [23] existed in the financial and insurance markets in the early 2000s that caused spikes nationally in medical malpractice rates.

1. Investment income fell
Medical malpractice insurance companies invest primarily in conservative investments to earn returns on reserves to pay future claims. Some claim that when stock and bond yields fell in the early 2000s, companies could no longer rely on the same level of investment return on reserves [24] companies raised premiums to offset the lower expected earnings on reserves.

2. Premiums did not keep up with changes in incurred claims
Some claim medical malpractice premiums were kept low while companies were aggressively competing for market share in the late 1990s so that companies could attract premiums to invest in the financial markets When the financial markets changed, companies focused more on pricing to pay for the level of actuarially projected claims. [25]

3. Reinsurance expenses increased
Medical malpractice insurers need reinsurance for the exposure of many high-cost claims. Some claim reinsurance became less available and more expensive in the early 2000s following the World Trade Center attacks and the Gulf Coast hurricanes. [26]

4. Coverage became less available as companies stopped renewing policies
Some claim that premiums rose as insurance carriers - including the largest national insurer, The St. Paul Companies - withdrew from writing medical malpractice insurance. [27] The remaining companies did pick up the business of the withdrawing companies but with increased administrative expenses.

Massachusetts Premiums Change in the 2000s

Based upon the rate history of Medical Professional Mutual Insurance Company (part of the ProMutual Insurance Group), rates did rise quickly in the early 2000's. Between 2000 and 2004, ProMutual's

physician and surgeon average rates increased each year by at least 9.0% over the previous year's rates. After 2004, ProMutual's rates were much more stable. (Figure 12)

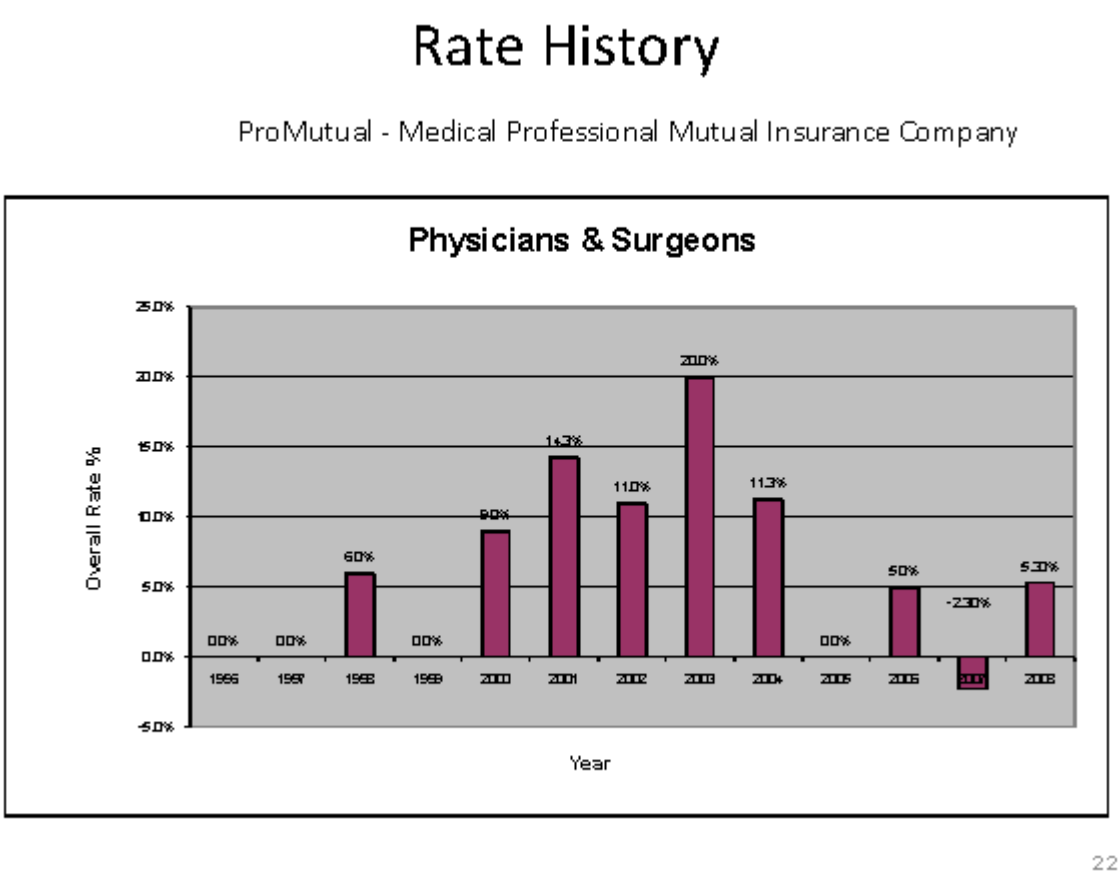


Figure 12

During this period, it also appears that the number (frequency) of Massachusetts medical malpractice claims that were paid also increased. According to the National Practitioner Data Bank, the annual number of medical malpractice claims that were paid for Massachusetts physicians increased from the 227 paid in 2002 to 273 in 2007. This is an increase of 46 claims or 20% above what was reported for 2002. [28]

Regarding the size of paid claims (the severity of claims), Massachusetts continues to have high average payouts compared to that of other states. In 2006, the average Massachusetts medical malpractice payment made on behalf of practitioners was $465,236; the median payment was $300,000. When examining claim payments made over the sixteen years between September 1, 1990 and December 31, 2006, Massachusetts' median payment was the second highest nationally, only behind that of the state of Illinois. (Figure 13)

Table 13: Mean and Median Medical Malpractice Payment and Mean and Median Delay Between Incident and Payment by State, 2006 and Cumulative Through 2006 - Physicians*
National Practitioner Data Bank (September 1, 1990 - December 31, 2006)

	Payment Amounts						Delay Between Incident and Payments			
	2006 Only			Cumulative through 2006			2006 Only	2006 Only	Cumulative through 2006	
State	Mean Payment	Median Payment	Rank of 2006 Median Payment***	Mean Payment	Median Payment	Rank of Cumulative Median Payment***	Mean Delay Between Incident and Payment (Years)	Median Delay Between Incident and Payment (Years)	Mean Delay Between Incident and Payment (Years)	Median Delay Between Incident and Payment (Years)
Alabama	$453,665	$149,900	33	$354,289	$150,000	7	4.47	4.12	4.30	4.00
Alaska	$240,511	$66,667	50	$251,950	$100,000	23	7.83	4.30	4.20	3.61
Arizona	$286,898	$161,375	28	$244,489	$120,000	21	4.11	3.86	3.87	3.39
Arkansas	$246,959	$87,500	46	$208,024	$100,000	23	4.01	3.45	3.57	3.17
California	$223,039	$75,000	48	$144,426	$50,000	51	3.30	2.76	3.32	2.77
Colorado	$312,138	$107,500	42	$204,758	$75,000	45	3.55	3.36	3.45	3.05
Connecticut	$500,289	$333,333	2	$402,000	$180,000	5	5.40	5.17	5.42	5.27
Delaware	$521,177	$250,000	6	$292,240	$125,000	17	4.17	3.82	4.42	4.08
District of Columbia	$331,628	$137,500	35	$392,983	$200,000	2	4.83	4.56	4.72	4.08
Florida**	$240,363	$150,000	29	$232,861	$150,000	7	4.22	3.89	4.00	3.52
Georgia	$292,902	$200,000	12	$305,797	$150,000	7	4.36	3.96	3.81	3.43
Hawaii	$342,316	$250,000	6	$303,571	$100,000	23	4.29	3.96	4.03	3.82
Idaho	$281,751	$200,000	12	$222,406	$75,000	45	3.69	3.50	3.70	3.27
Illinois	$619,205	$400,000	1	$366,004	$205,000	1	5.82	5.35	5.70	5.15
Indiana**	$322,822	$130,339	36	$186,946	$75,001	44	6.38	5.96	5.63	5.27
Iowa	$274,281	$125,000	38	$201,015	$82,500	40	4.08	3.47	3.36	3.13
Kansas**	$155,285	$125,000	38	$161,656	$120,000	21	3.90	3.56	3.96	3.35
Kentucky	$280,599	$147,250	34	$195,284	$80,000	41	5.10	4.55	4.21	3.55
Louisiana**	$207,878	$100,000	44	$151,983	$93,000	35	5.76	5.10	5.24	4.70
Maine	$322,325	$240,000	10	$266,548	$150,000	7	4.41	4.27	4.11	3.74
Maryland	$347,477	$200,000	12	$275,781	$150,000	7	4.72	4.16	4.57	4.17
Massachusetts	$465,236	$300,000	3	$337,574	$200,000	2	6.60	6.50	5.98	5.70
Michigan	$138,433	$85,000	47	$109,004	$75,000	45	4.36	3.96	4.33	3.65
Minnesota	$480,822	$225,000	11	$228,703	$85,000	39	3.53	3.25	3.24	2.86
Mississippi	$258,806	$175,000	24	$218,855	$100,000	23	4.84	4.31	4.25	3.66
Missouri	$330,115	$200,000	12	$234,861	$125,000	17	4.57	4.30	4.46	3.90
Montana	$320,849	$190,000	21	$187,697	$75,000	45	4.43	4.07	4.21	3.70
Nebraska**	$213,081	$200,000	12	$139,798	$90,000	36	4.67	3.64	4.11	3.81
Nevada	$340,211	$187,500	22	$277,211	$130,000	16	4.91	4.75	4.55	4.30
New Hampshire	$336,032	$300,000	3	$270,550	$152,487	6	4.66	4.81	4.70	4.16
New Jersey	$401,144	$242,250	9	$289,726	$150,000	7	5.82	4.97	6.06	5.10
New Mexico**	$199,917	$170,000	25	$157,429	$100,000	23	3.70	3.45	3.80	3.37
New York	$405,556	$250,000	6	$300,521	$150,000	7	5.79	5.18	6.65	5.76
North Carolina	$366,966	$200,000	12	$275,486	$125,000	17	4.29	3.90	3.89	3.52
North Dakota	$301,422	$200,000	12	$204,117	$68,750	38	4.00	3.18	3.44	3.20
Ohio	$310,573	$170,000	25	$249,497	$100,000	23	5.45	4.16	4.35	3.55
Oklahoma	$245,127	$150,000	29	$252,600	$98,250	34	4.13	3.90	3.96	3.45
Oregon	$305,725	$120,000	41	$230,037	$100,000	23	3.47	3.38	3.42	3.07
Pennsylvania**	$332,376	$300,000	3	$249,721	$200,000	2	5.77	5.01	5.89	5.41
Rhode Island	$326,542	$200,000	12	$260,190	$125,000	17	5.95	6.21	6.16	5.88
South Carolina**	$174,454	$100,000	44	$191,770	$100,000	23	4.70	4.40	4.60	4.19
South Dakota	$422,033	$75,000	48	$230,816	$75,053	43	3.26	3.39	3.58	3.23
Tennessee	$317,305	$150,000	29	$230,239	$100,000	23	4.36	3.81	3.77	3.29
Texas	$175,644	$121,009	40	$194,530	$100,000	23	4.05	3.60	3.82	3.40
Utah	$247,349	$165,000	27	$161,591	$55,000	50	4.34	3.87	3.66	3.32
Vermont	$125,795	$26,000	51	$148,462	$75,000	45	3.98	3.65	4.30	4.03
Virginia	$295,840	$200,000	12	$224,984	$132,361	15	3.94	3.52	3.82	3.28
Washington	$277,493	$130,000	37	$225,113	$90,000	36	4.31	4.03	4.25	3.68
West Virginia	$204,794	$105,000	43	$219,180	$100,000	23	5.09	4.32	5.30	4.15
Wisconsin**	$524,041	$177,500	23	$340,051	$150,000	7	4.41	4.44	4.74	4.19
Wyoming	$413,553	$150,000	29	$191,211	$80,000	41	3.33	3.03	3.26	3.02
All Jurisdictions****	$311,965	$175,000		$234,289	$104,167		4.88	4.34	4.75	4.05

This table includes only disclosable reports in the NPDB as of the end of the current year. Voided reports have been excluded.

* The "Physicians" category includes allopathic (M.D.) physicians, allopathic interns and residents, osteopathic (D.O.) physicians, and osteopathic interns and residents.

**These data are not adjusted for payments by State compensation funds and other similar funds. Mean and median payments for States with payments made by these funds understate the actual mean and median amounts received by claimants. Payments made by these funds may also affect mean and median delay times between incidents and payments. States with these funds are marked with two asterisks.

***One denotes the largest median payment; 51 denotes the lowest median payment.

****The total includes reports for American Samoa, Guam, Northern Mariana Islands, Puerto Rico, U.S. Virgin Islands, and Armed Forces locations overseas (214 reports in 2006, and 2,673 reports cumulatively for payment amount and 214 reports for 2006 and 2,610 reports cumulatively for delay between incident and payment).

Figure 13 [29]

Premiums Compared to Those of Other States

ProMutual submitted materials to supplement testimony it presented at the October 3, 2008 hearing

presenting the rates the company charges by physician specialty in six Northeast states. [30] The rates that the company charges in Massachusetts and Connecticut are among the highest of the six states, but not for every specialty. (Figure 14)

PROMUTUAL GROUP'S MATURE RATES BY CLASS AS OF 11/01/08 FOR CLAIMS MADE POLICIES *

25 HIGHEST MASSACHUSETTS COMPARED TO RATES IN OTHER NORTHEAST STATES

Class	Description	Massachusetts Effective 7/1/2008	Connecticut Effective 12/1/2008	Rhode Island Effective 9/1/2008	N. Hampshire Effective 10/1/2008	New Jersey Effective 12/1/2008	PA-Territory 4 Effective 7/1/2008
80152	Neurology - incl children, major surgery	108,293	109,897	87,905	89,325	89,468	88,710
80153	OB, gynecology, major surgery	104,481	121,696	97,639	60,653	104,928	93,636
80168	OB, major surgery	104,481	121,696	97,639	60,653	104,928	93,636
80154	Orthopedic incl. spinal, major surgery	86,055	90,207	64,056	51,831	67,114	66,545
80146	Vascular, major surgery	53,537	62,597	54,311	45,215	54,911	54,446
80150	Cardiovascular disease, major surgery	53,537	62,597	66,601	45,215	51,543	51,107
80170	Head & neck, major surgery	53,537	62,597	40,264	39,700	51,543	51,107
80171	Traumatic, major surgery	53,537	62,597	N/A	45,215	51,543	51,107
80354	Orthopedic excl. spinal, major surgery	48,539	75,301	51,266	39,700	54,911	54,446
80141	Cardiac, major surgery	43,643	46,772	N/A	45,215	51,543	51,107
80143	General (NOC), major surgery	43,643	75,301	38,932	37,494	51,543	51,107
80144	Thoracic, major surgery	43,643	62,597	40,264	45,215	54,911	54,446
80155	Plastic - otorhinolaryngology, major surg.	43,643	62,597	54,311	37,494	51,543	51,107
80156	Plastic (NOC), major surgery	43,643	62,597	54,311	37,494	51,543	51,107
80157	Emergency med, incl major surg (brd cert)	43,643	46,772	N/A	39,700	36,717	36,406
80166	Abdominal, major surgery	43,643	46,772	N/A	37,494	51,543	51,107
80167	Gynecology, major surgery	43,643	46,772	38,932	39,700	51,543	51,107
80169	Hand, major surgery	43,643	46,772	36,885	37,494	51,543	51,107
80184	Bariatric, major surgery	43,643	75,301	38,932	37,494	51,543	51,107
80465	Emergency med, inc major surg (no brd cert)	43,643	46,772	N/A	N/A	36,717	36,406
80102	Emergency med, no major surg (brd cert)	29,969	31,067	26,640	16,030	28,018	28,614
80464	Emergency med, no major surg (no brd cert)	29,969	31,067	N/A	16,030	28,018	28,614
80101	Bronco-Esophagology, major surgery	29,042	33,706	N/A	26,466	22,855	22,661
80103	Endocrinology, major surgery	29,042	33,706	N/A	26,466	17,205	17,060
80104	Gastroenterology, major surgery	29,042	33,706	N/A	18,748	22,855	22,661

* ProMutual mature rates in a claims made policy are for those doctors who have been covered under the claims made policy for five or more years.

Figure 14

Among the specialty groups, **Massachusetts' average rates for the obstetrician rating classes (80153 and 80168)** -are $104,481; this is similar to five other states, but over $40,000 more than charged in New Hampshire. For the related gynecology only rating class (80167), Massachusetts' average rates are $43,643; this is relatively similar to that of the other states.

Options for Decreasing Premiums

Medical malpractice insurance actuaries calculate premiums to cover projected claims, expenses, taxes and dividends The premiums that they calculate will change based upon projected changes in claims, expenses, taxes, reinsurance and expected rates of return. While financial investment returns, premium tax policy and the availability of reinsurance impact insurance carriers' need for premium, they are not specific to medical malpractice and are beyond the scope of this report. This section looks at medical malpractice and ways to lower claims as a means of affecting premiums.

Health care professionals buy medical malpractice coverage to protect themselves from the potential cost of future lawsuits. The coverage itself does not prevent medical malpractice claims and does not prevent medical errors that may be the basis of a claim. Over the past 35 years, there has been a polarized debate about ways to rescue lawsuits and ultimately reduce medical malpractice claims.

Some claim that part of the problem is a growing breakdown in communication and trust between health care professionals and patients in an increasingly complex system of health care delivery. [31] Others blame the number of malpractice claims on the legal community's eagerness to file what the health care community deems to be groundless claims. [32] Still others blame the number of malpractice claims on the number of errors caused by health care professionals that result in patient harm. [33]

Communications

While there are cases where a health care professional acted negligently, there are also cases where patient expectations were unrealistic, communication was faulty, perceived trust was broken and the patient files a claim to address a negligent action or nonaction. Some claim that what lies at the heart of much of medical malpractice is a breakdown in communication between health care professionals and their patients and unrealistic expectations held by some patients that treatments will result in the best outcome. [34]

Some claim that the health care professional-patient relationship depends on open communication and trust where each side feels listened to and respected. When bonds are strong, the health care professional is viewed as a trusted counselor overseeing care rather than a distant technician. When health care professionals explain the risks of each option and listen carefully to consumer confusion, the patient feels part of the health care treatment. This may reduce a patient's feeling of powerlessness and that they have been wronged by a negligent provider. [35]

Some also claim that some but not all lawsuits may be avoided by simple actions that sympathize with a patient and acknowledge when an error led to a problem"defusing the anger and resentment that motivate many lawsuits". [36]Admissions that an error has occurred may reassure a patient that his/her health care professional continues to care about patient and is concerned to fix any error that may have occurred.

Enterprise Liability

Some claim that a number of medical errors are the result of system failure rather than the failures of any one health care professional. [37]Errors may be caused when charts are out-of-date or equipment is not working properly. Nationally and locally, there has been increased focus on improving systems of care and developing better ways to coordinate information, treatment and communication among the health care professionals involved in delivering care. [38]

Some have proposed shifting the risk of medical malpractice from individual health care professionals to the medical systems or enterprises in which they practice. [39] Under such enterprise liability proposals, hospitals and health plans would bear the risk and would coordinate the review of systems problems, where "physicians and hospitals have a common organizational andfinancial interest in reducing patient injury and managingliabilityrisk across a spectrum of clinical services." [40]

Systems approaches to medical malpractice insurance would be challenging in Massachusetts as most hospitals and health plans have been established as charitable organizations and such organizations' liability exposure is limited to $20,000 per action. [41] Also, while certain physicians and chiropractors are required to have liability coverage to be licensed, [42] there are not any such laws requiring that hospitals or health plans have such liability coverage.

Pro	Those who support a systems or enterprise approach argue that the most effective way to improve health care and reduce medical errors is for the systems of care to be primarily responsible for medical malpractice claims tied to care occurring in the systems. [43]

Con Those who do not support a systems or enterprise approach argue that there are no clear integrated systems of care since health care professionals practice within many hospitals or health plans. [44] Charitable liability caps that apply to most Massachusetts hospitals and health plans also present challenges to shifting risk to institutions. [45]

Tort Reform

Under current Massachusetts law,

- all medical malpractice claims are to be reviewed for merit by a tribunal;" [46]
- medical malpractice suits are generally to be filed within 3 years of negligent act; [47]
- when more than one health care professional is named in a lawsuit, each is jointly and severally liable for the entire amount of the lawsuit; [48]
- noneconomic ("pain and suffering") damages are limited to $500,000; [49] and
- there are limits on the amount attorneys are paid on malpractice awards. [50]

Some have suggested that the existing rules need to be changed and that the state consider additional changes to limit medical malpractice lawsuits. [51] , [52]

1) Lower the non-economic damage caps,

In a medical malpractice case, a jury is instructed not to award any plaintiff more than $500,000 for the non-economic damages of pain and suffering, loss of companionship, embarrassment, and other items of general damages, unless the jury determines that there are special circumstances. Of those states with laws limiting non-economic damages, 21 have caps lower than Massachusetts' cap of $500,000 with the lowest at $250,000. [53]

Pro Those in favor of reducing the existing cap argue that this will reduce payouts thereby reducing claims costs and ultimately reducing overall premiums. [54]

Con Those opposed to reducing the caps argue that this will improperly take away victims' rights to recover for appropriate non-economic losses. [55]

2) Revise joint and several liability rules

Under existing Massachusetts law, if there is more than one health care professional named in a medical malpractice lawsuit, any resulting damages are to be the joint responsibility of all the named professionals. At this time 36 states have laws that permit the proportionate allocation of damages based on allocation of fault. [56]

Pro Those in favor of revising the joint and several liability rules argue that this will properly apportion damage awards according to the proportionate fault of the health care professional rather than by the size of a professional's resources or medical malpractice insurance. [57]

Con Those in favor of the current joint and several liability rules argue that it ensures that aggrieved patients will be compensated for malpractice damages from all available sources, independent of a provider's proportionate share of the fault. [58] , [59]

3) Create new standards for expert medical witnesses
Massachusetts law does not require that expert witnesses in a trial practice in the same specialty as the medical professional subject to the malpractice claim. At this time, 23 states have statutes that require that a medical professional meet certain training in a specialty to provide expert testimony regarding alleged malpractice in that specialty. [60]

Pro	Those in favor of new standards for expert medical witnesses argue that testimony presented in a lawsuit should only be considered if from health care professionals who have the same medical training in order to reduce jury confusion and inappropriate jury awards. [61] , [62]
Con	Those who do not support new standards for witnesses claim that only a limited number of professionals are willing to testify against another health professional and such standards would create unnecessary burdens when all licensed physicians have had some training in medical practice and are qualified to speak about acts that constitute medical malpractice. [63]

4) Prevent the disclosure of an error to a patient from being used in a lawsuit
Under Massachusetts law, there are not any laws that exclude the disclosure of an error to a patient or family member from being included in a lawsuit. [64] Five states have laws that restrict the use of a health care professional's disclosure of an error to a patient or family member in a lawsuit. [65]

Pro	Those who support laws to exclude a physician's disclosure of error from being used in a lawsuit argue that physicians will be more ready to disclose errors and work to coordinate care to address the error. [66]
Con	Those who do not support laws to exclude a physician's disclosure of an error from being used in a lawsuit argue such a law would restrict a patient's ability to put on the best case to obtain appropriate compensation for injuries. [67]

5) Change the medical malpractice review process
In 2005, Montana Senator Max Baucus proposed S. 1337 [68] to establish grants to states to encourage new systems to resolve medical malpractice disputes so as to improve the timeliness and fairness of resolutions. Among the ideas suggested were (1)programs designed to promote full disclosure and early offers without admissions of liability and (2) special health care courts adjudicated by judges with special health care expertise.

While certain hospitals have established voluntary disclosure/early offer programs, it does not appear that any states have created health courts. Michigan has enacted a statute that requires a Full Disclosure Program at its University of Michigan Health System requiring all errors be examined and settlements be offered if there was an error; the Michigan program is claimed to save approximately 2 million dollars a year. [69] , [70]

Pro	Those in favor of creating new review processes such as the disclosure/early settlement programs and health courts argue that they will reduce the number of lawsuits filed and the time needed to resolve disputes. [71]
Con	Those who do not support these changes on a mandatory basis argue that disclosure/early offer programs may impede a patient's right to have a negligence claim addressed through the court system [72] and that specialized health courts may establish new bureaucracies without improving outcomes. [73]

6) Establish state no-fault systems for medical malpractice"
Other countries - notably Sweden, Denmark, Finland, and New Zealand - have used no-fault malpractice systems for over 20 years where there is "an official recognition of the limits of medicine…[where] medical mistakes are not only possible, but they are likely and that doctors may make mistakes that are not necessarily the result of negligence...[and] the question of fault is separated from mistakes." [74]

Pro	Those in favor of creating no-fault systems argue that such systems handle patient claims in a quick and equitable fashion without the need for litigation. [75]
Con	Those opposed to creating no-fault systems argue that they do not appropriately address individual patients concerns that can only be addressed within the tort system and do not address the underlying medical errors with appropriate financial disincentives for medical errors. [76]

Medical Reforms
According to an Institute of Medicine study from 1999, [77] there are thousands of medical errors occurring annually that are responsible for patient deaths and injuries. With the rapid advance of technology and the increasing complexity of health care and obtaining necessary information to make informed treatment decisions, errors occur. A great deal of effort is devoted to examine errors and design steps that will improve quality of care and patient safety. Congress created the National Practitioner Data bank to collect information about malpractice payments to study patterns leading to errors. [78]

While disclosure may help to improve systems, there is also concern it may lead to more lawsuits, health care professionals avoiding high-risk patients and increasing "defensive medicine," not to improve patient care but to avoid lawsuits. According to "The Investigation of Defensive Medicine in Massachusetts" a study conducted by the Massachusetts Medical Society, "83% of physicians surveyed said they have practiced so-called defensive medicine and that an average of 18 to 28 percent of tests, procedures, referrals and consultations, and 13 percent of hospitalizations - at an estimated cost exceeding $1.4 billion in annual health care costs - were ordered to avoid lawsuits. [79]"

1) Publicly disclose all medical errors and information on high-risk providers
There is an ongoing debate about whether the best way to prevent errors is to disclose all errors so that patients are fully aware of their health care professionals practice patterns and so that actions can be taken to prevent errors and resulting lawsuits in the future.

Pro	Those supporting disclosure of errors argue that this will foster more rigorous risk management and permit affected patients to be properly compensated. [80]
Con	Those who support disclosure but only on a confidential basis to other health care professionals argue that full disclosure could increase the fear of lawsuits, decrease reporting of errors and decrease the number of health care professionals willing to treat high-risk patients. [81]

2) Develop clinical practice guidelines that providers are to follow

Some have argued that if medical practice guidelines were developed and acknowledged, it would reduce the likelihood for lawsuits. If the legal standard of care were aligned with the medical standard of care, the need for certain lawsuits, lengthy court proceedings on others, and sorting through dueling opinions of expert witnesses may be reduced. [82]

Pro	Those who support developing clinical practice guidelines believe they could create standards that would be used to review health care professional actions and reduce disputes about whether actions were appropriate. [83]
Con	Those who do not support such guidelines argue that it is not always possible to develop standards of care and other states such as Maine have ended projects to develop such standards due to the complexity in completing them for use. [84] , [85]

3) Actively police health care professionals, suspending licenses more aggressively

There are some who argue that not enough is being done to discipline health care professionals who are operating negligently. Just 1.1% of doctors -with four or more malpractice payments - were responsible for 20.2% of all payments, yet only 14.75% percent of these doctors were disciplined by their state licensing board. [86]

Pro	Those who support stepped up enforcement efforts believe that there are a number of unsafe health care professionals, who need to be removed from delivering care in order to improve patient safety and medical malpractice lawsuits. [87]
Con	Those who are opposed to stepped-up enforcement systems argue that the complexity of medical systems of care make all health care professionals exposed to being accused of negligent mistakes when one may have not actually occurred. [88]

Establishing a Reinsurance Pool

Section 29 of Chapter 305 of the Acts of 2008, suggested considering establishing a reinsurance pool with additional stop loss coverage to address premiums. Under state law, a reinsurance program, the Massachusetts Medical Malpractice Reinsurance Program (MMMRP) already exists as created under

Chapter 330 of the Acts of 1994, Since licensed medical malpractice insurance companies are required to write coverage for all professionals in the specialty it covers, the statute created the MMMRP so that insurance companies could cede certain health care professionals that are covered under the "take all comers provisions."

All licensed medical malpractice insurers are members of the MMMRP and share in the losses that the Program encounters for any health care professionals who are ceded to the Program. The number ceded to the MMMRP reached its peak of 699 ceded policies in the summer of 2004; the number ceded has fallen to the current low of 31 policyholders. (Figure 15)

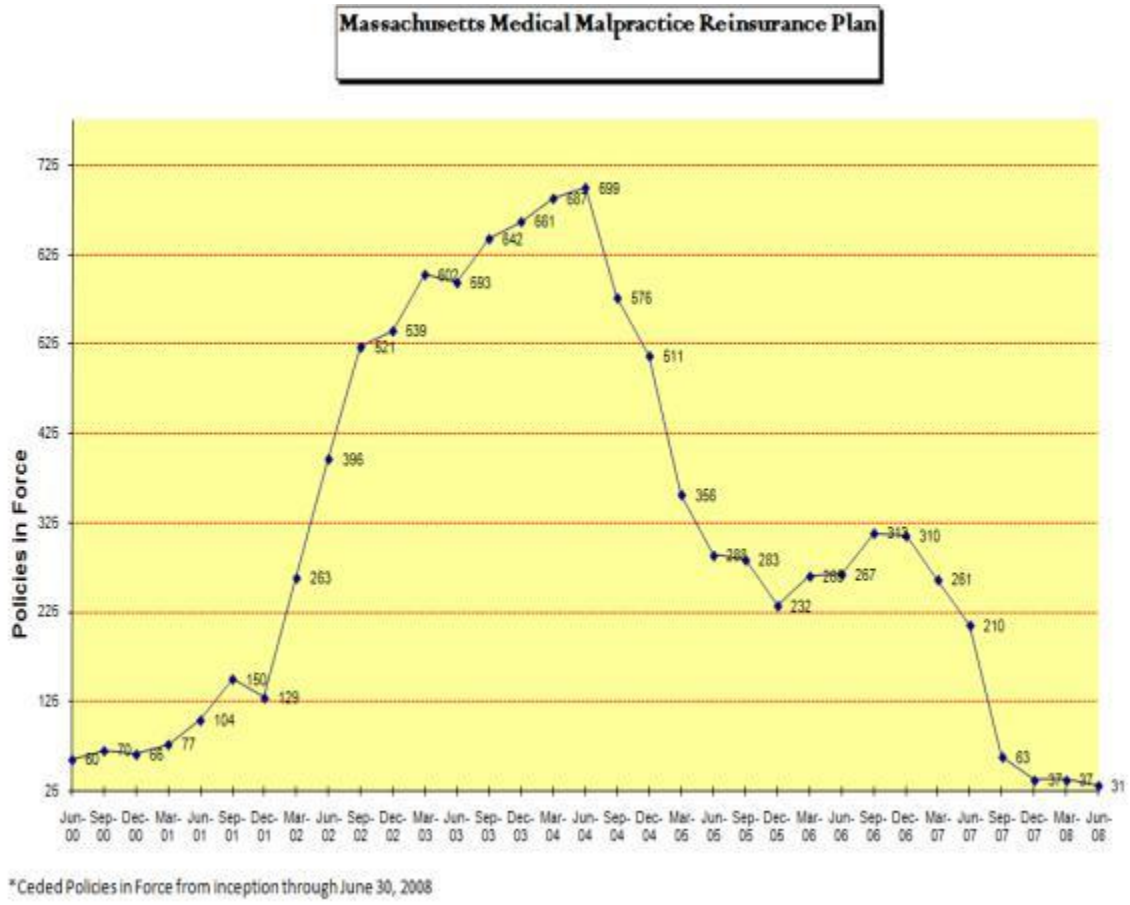


Figure 15

This mechanism supports companies in a "take all comers" market so that they are less likely to withdraw from the market for fear of getting a disproportionate share of projected high-cost providers.

Premium Differences Between Health Care Professionals

Insurance carriers establish different risk classifications based on the projected claim levels for certain specialties. According to a recent Health Affairs article, [89] in Massachusetts, after taking credits and discounts for clean claim histories, ProMutual's average "premiums were $17,810for the coverage level and policy type most frequently purchased…[and m]ost physicians paid lower inflation-adjusted premiums in 2005than in 1990." This, however, was not representative of all physicians, as "[m]ean premiums [dramatically] increased in three specialtiescomprising 4 percent of physicians: obstetrics, neurology, andorthopedists-spinal surgery". [90]

During the Division's October 3, 2008 hearing, Mr. Angoff, representing the Massachusetts Association of Trial Attorneys, presented testimony that the state should be concerned about the relative prices for different specialties relative to their incomes. [91]According to his testimony, if neurosurgeons and obstetricians both pay approximately $100,000 in annual medical malpractice costs, it impacts more of the obstetrician's $250,000 income than then neurosurgeon's $500,000 income. He suggested that states should find ways to subsidize the premiums of specialties such as obstetricians where the cost of premiums represents a disproportionately high proportion of the provider's income. [92]

During the same hearings [93], a number of obstetricians attended or wrote to express their frustration with the cost of insurance which, when combined with the overall stress of their jobs have many questioning their commitment to continue to practice in Massachusetts. Many of these providers claimed that they were seriously considering reducing their work hours and workloads and also relocating to practice in other jurisdictions. [94] No other specialty providers - other than the obstetricians and gynecologists - presented any testimony at these hearings.

When considering the reasons for the differing premiums for obstetricians and gynecologists, it may be helpful to look at the general claims experience for these specialties. For the period between 1994 and 2003, the physician category with the highest proportion of professionals having reported paid claims was the obstetrics and gynecology category. Over 20% of physicians practicing obstetrics or gynecology experienced at least one claim between 1994 and 2003. (Figure 16)

Massachusetts Board of Registration in Medicine
Fifteen Highest Ranked Specialties for Number of Claims 1994-2003 [95]

	% of Physicians with Paid Claims
Obstetrics and Gynecology	24.1%
Gynecology	20.7%
Neurological Surgery	16.2%
General Surgery	14.6%
Orthopedic Surgery	13.5%
Plastic Surgery	10.3%

Diagnostic Radiology	8.4%
Emergency Medicine	7.3%
Family Practice	6.0%
Dermatology	5.6%
Cardiovascular Diseases	4.6%
Anesthesiology	4.4%
Internal Medicine	4.3%
Pediatrics	3.2%
Psychiatry	2.6%

Figure 16

Based upon the same reporting period, the average paid claim between 1994 and 2003 for obstetrical and gynecological care was over $400,000. This accounts for 23.1% of all claims reported to have been paid by medical doctors in this period. (Figure 17)

Board of Registration in Medicine
Amount Paid by Medical Specialty, 1994-2003
(Total of $1.035 billion reported paid by all doctors during this period)

Specialty	Count	Lowest	Highest	Average	Total	% of Total
Obstetrics and Gynecology	476	$1,000.00	$6,728,702.00	$447,982.81	$213,239,816	20.6%
Gynecology	64	$2,500.00	$2,466,631.00	$400,338.36	$25,621,655	2.5%
						23.1%

Figure 17

When comparing this to national experience, obstetrics-related cases accounted for 1,085 reports or 8.7 percent of all reports made to the NPDB with mean payments of $558,035 and median payments of $333,334. [96]

Numbers of Physicians Available for Care

Based upon information collected by the Division from the Board of Registration, it is possible to examine trends in the number of providers who were licensed to practice medicine by reported specialty and by county for both 2001 and in 2007.

The number of licensed physicians increased from 20,554 in 2001 to 20,740 in 2007; the numbers also increased in almost every county. (Figure 18)

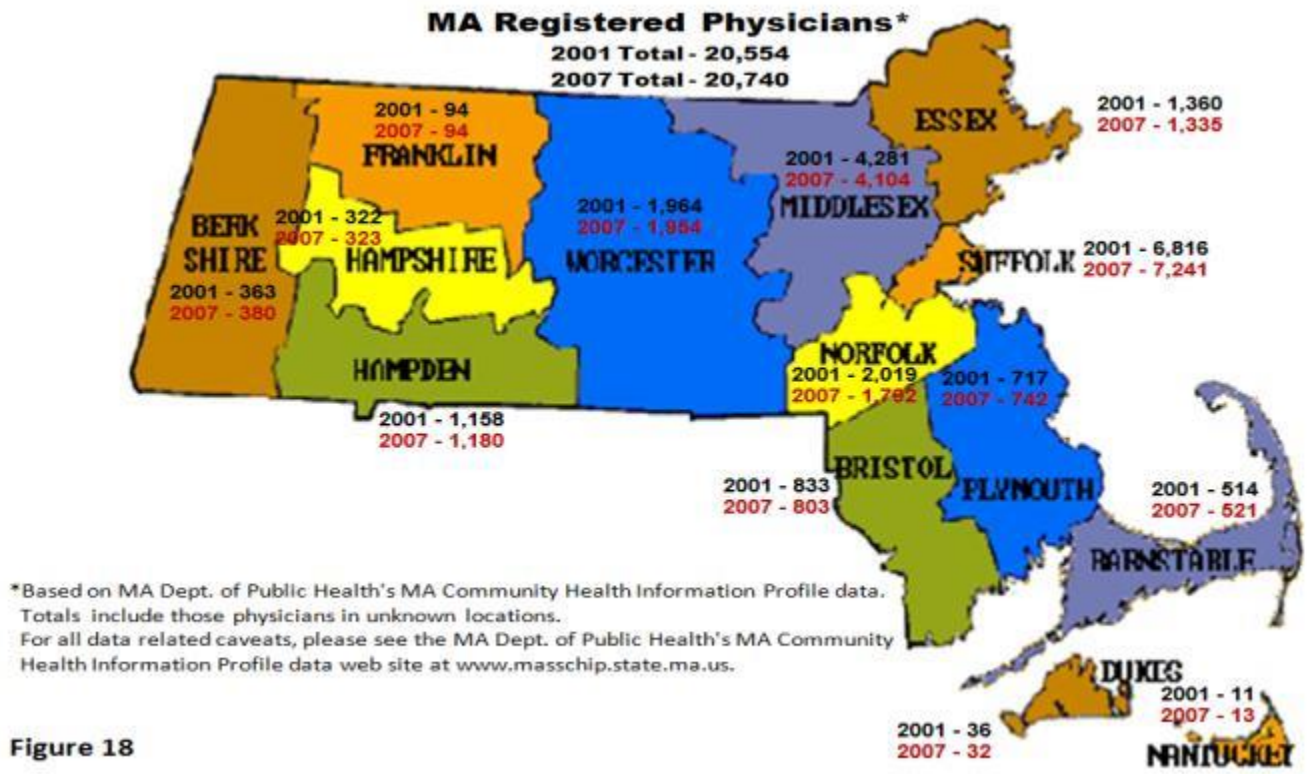
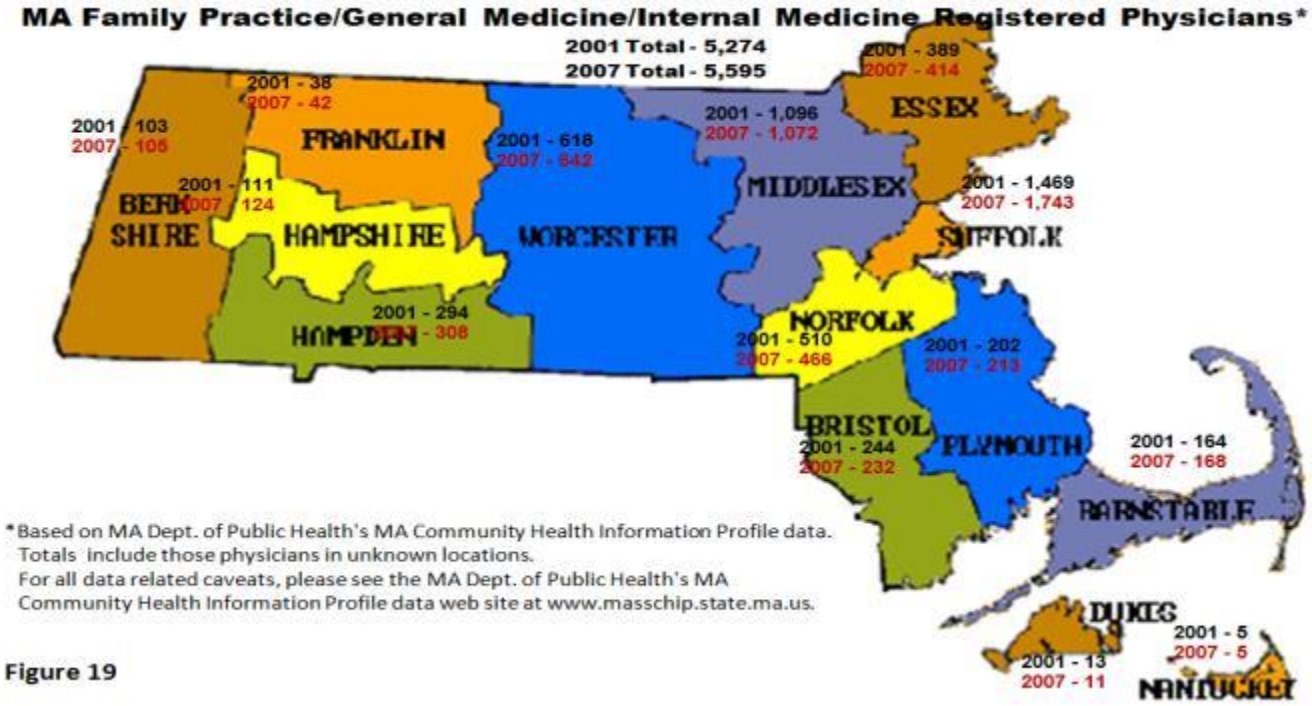


Figure 18

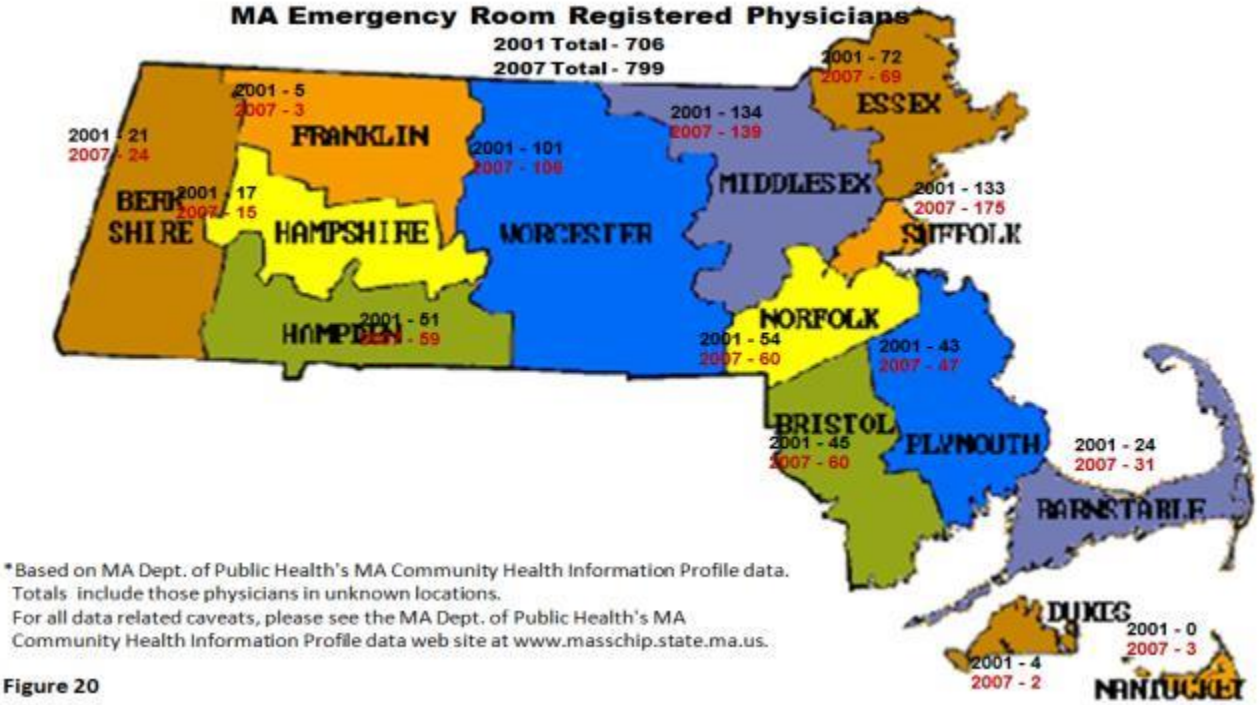
Licensed family practice, general medicine and internal medicine physicians increased from 5,274 in 2001 to 5,595 in 2007. (Figure 19)



*Based on MA Dept. of Public Health's MA Community Health Information Profile data.
Totals include those physicians in unknown locations.
For all data related caveats, please see the MA Dept. of Public Health's MA Community Health Information Profile data web site at www.masschip.state.ma.us.

Figure 19

Licensed emergency room physicians increased from 706 in 2001 to 799 in 2007; they appeared to increase most in eastern Massachusetts. (Figure 20)



*Based on MA Dept. of Public Health's MA Community Health Information Profile data.
Totals include those physicians in unknown locations.
For all data related caveats, please see the MA Dept. of Public Health's MA Community Health Information Profile data web site at www.masschip.state.ma.us.

Figure 20

The number of licensed obstetricians and gynecologists decreased from 935 in 2001 to 856 in 2007; this is an 8.5% drop in 6 years and decreased in all but one of the counties. (Figure 21)

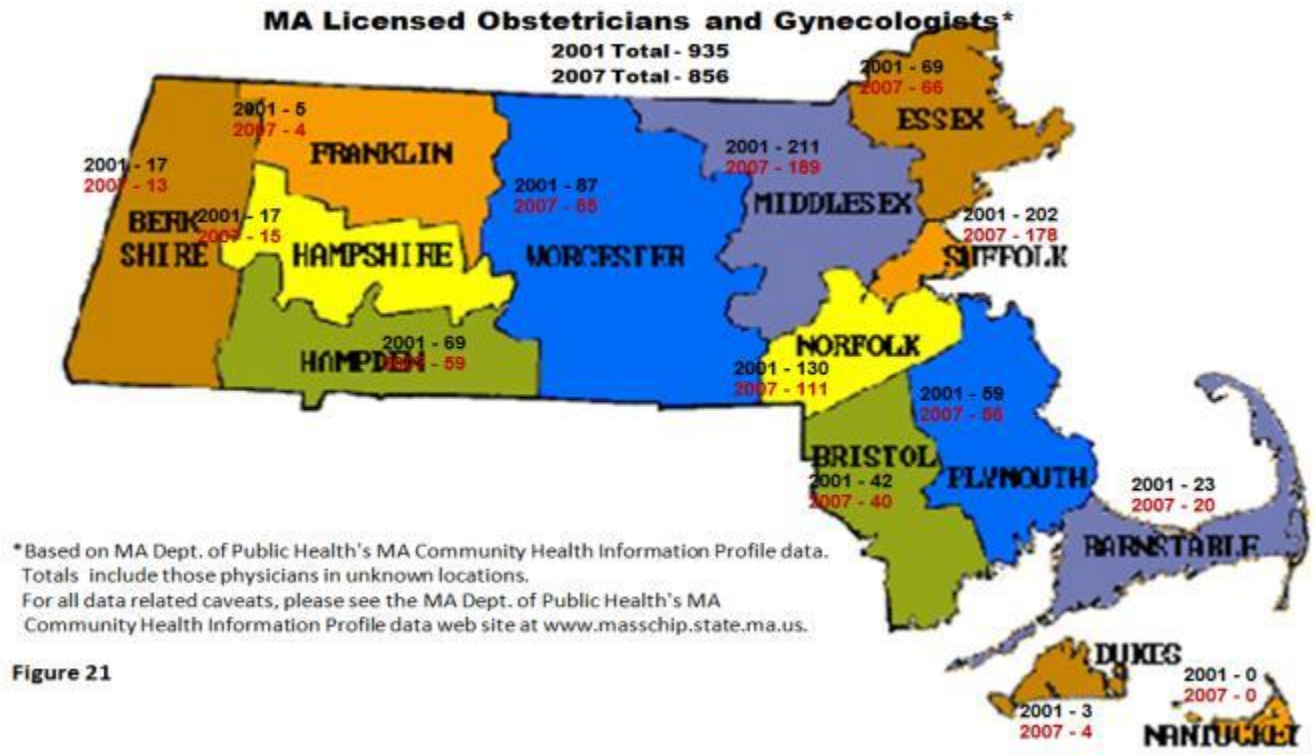


Figure 21

Addressing Premiums for Certain High-Risk Specialties

In the hearings certain persons pointed out that the disproportionately high cost of medical malpractice for obstetricians may be one of the reasons that these doctors are leaving their Massachusetts's practices. This section of the report considers ways to address the cost of coverage for disproportionately affected high-risk specialists.

1. Cross-subsidizing medical malpractice premiums

Medical malpractice insurance carriers have developed risk classifications by specialty to reflect the relative risk of a specialty. Carriers also tend to include modest cross-subsidizations to temper the rates of high-risk specialties, notably obstetricians and gynecologists, within what they believed to be reasonable levels.

Pro

Those who support such assessments argue that cross-subsidizations are necessary for high-cost specialties and some of the more highly paid specialties are not paying as significantly high a share of the medical malpractice costs so that further cross-subsidization would spread the cost among the physician community. [97] , [98]

Con	Those who do not support this approach argue that cross-subsidization already exists to a certain degree and any statute mandating cross-subsidization of premiums among specialties will not establish the proper incentives to find ways to reduce risk. [99] In addition, since state medical malpractice insurance laws do not apply to RRGs and surplus lines coverage, mandating further cross-subsidization among specialties may push providers to look for coverage in the RRGs and surplus lines carriers. [100] This could leave a disproportionate share of high-risk providers in the insured market and lead to further increases for those purchasing coverage in the regulated market.

2. Assess other property and casualty companies
Assessments on property and casualty premiums could be used to subsidize certain high-risk specialties. Such assessment could be applied to insurance companies but could not be applied to Risk Retention Groups and surplus lines carriers.

Pro	Those who support this approach would argue that premium assessments taken from all property and casualty companies could subsidize high-cost specialties.
Con	Those who do not support this approach argue that such assessments have been used as short-term solutions and do not affect the underlying risk of lawsuits or create any incentives to reduce the incidence of future lawsuits. [101]Such assessments on health insurance companies also will increase the overall cost of health insurance.

3. Assess health insurance carriers to subsidize premiums of high-risk specialists
Health Maintenance Organization (HMO) networks need adequate numbers of each specialty in their networks to deliver covered services. Since they need to have obstetricians within their networks, some argue that assessments on HMO premiums could subsidize the cost of obstetrical medical malpractice premiums. Since 2005, Maryland has collected a 2% HMO premium surcharge - estimated at $35 million in 2007 - and distributes the funds to medical malpractice insurers provided that premiums in high-risk specialties do not increase by more than 5% annually. [102]

Pro	Those who support such assessments argue that subsidies are necessary for high-cost specialties so that physicians will continue to practice in those specialties and assessments of health insurance companies would spread the cost over a wide array of payers who rely on the supply of providers in the high-risk specialties to deliver care to members of the health plan. [103]
Con	Those who do not support this approach argue that such assessments have been used as short-term solutions and do not affect the underlying risk of lawsuits or create any incentives to reduce

the incidence of future lawsuits. [104]Such assessments on companies also will increase the overall cost of other types of insurance.

4. Create Limited No-Fault Programs for Obstetrical Claims
Virginia and Florida both enacted laws to allow certain birth-related injuries to be handled outside traditional medical malpractice systems. Both funds are financed by assessments on medical malpractice insurers and create systems parallel to many workers' compensation systems.

By statute, Virginia created a no-fault program administered through state's Workers Compensation Commission to support a coordinated system of care for neurologically disabled children due to oxygen deprivation or mechanical injury during delivery or immediately post-delivery. [105] A 7-member volunteer Board of directors is responsible to oversee the program and the panel of expert physicians evaluating claims within 120 days of a petition being filed.

The Program is designed to coordinate care for eligible children for life providing payments for all medical, hospital, rehabilitation and in-home nursing covered, as well as social service and income replacement through age 65. The Program was created when "up to ¼ of the state's obstetricians threatened to close their doors…[and is] funded by annual participating physician ($5,000-$6,000) and hospital (up to $200,000) fees per year, assessments of liability carriers up to 0.25% of premium and assessments of up to $300 per year from non-participating physicians." [106]

In return for participating in the program a physician is to receive a credit from his/her medical malpractice premiums to reflect the reduced risk of coverage. According to a report submitted to the Virginia General Assembly, "[i]n addition to serving more birth-injured children than the tort system, the program provides benefits that exceed the medical malpractice cap for the typical child." [107]

Pro	Those who support this approach argue that the program fosters a more coordinated and speedy system of care for the affected child, avoids lengthy court proceedings and reduces medical malpractice losses and premiums for those physicians who participate in the system. [108]
Con	Those who do not support this approach point out that an actuarial study raises concerns about the overall solvency of the available funds without the collection of additional resources. [109]

Prorating Premiums for Those who Practice Less Than Full-Time

Certain practitioners testified in the hearings held at the Division of Insurance that their premiums should be prorated to reflect that they are working less than full-time. As noted by one practitioner, if her income was decreasing, then her premium should likewise decrease.

Although there are not any statutory mandates for such proration, it is clear that at least one carrier in the market, ProMutual does offer a "Limited Practice Credit of up to 50% for those academic or community-based service practitioners who practice in non-surgical or minor surgical specialties less than 21 hours per week or 80 hours per month. Health care professionals are to fill out special applications identifying the reduced hours in order to receive the credit.

It appears that ProMutual does not provide rate credit for other surgical specialties because the risk due to reduced work hours does not as easily reflect the reduction in work hours. For surgeons, it is necessary to continue to do a sufficient number of surgeries each month to operate at the maximum level and reducing practices below a certain number of hours or surgeries per month may actually increase the relative risk of medical malpractice errors and potential claims.

Pro	Those who support premiums being prorated by the number of hours a physician works argue that a physician's risk of medical malpractice claims is directly related to the number of patient seen or hours worked. If a health care professional due to personal reasons wishes to reduce his/her work hours, it would be appropriate for the risk and would encourage physicians not to drop out of practicing all together.
Con	Those who do not support premiums being further prorated argue that a physician needs to see a certain number of patients or work a certain number of hours to maintain their skills. Once a physician works that critical number of hours but less than a full workload then they may qualify for certain subsidies.

Conclusion

While medical malpractice premiums have been relatively stable over the past four years, many health care professionals consider them to be too high and too prone to increase. While medical malpractice premiums can change for many reasons, Massachusetts' relative high cost compared to that of other states appears to be tied to the cost of higher medical malpractice claims.

Medical malpractice premium costs are impacted by the number of expected lawsuits associated with medical malpractice claims. It is not clear why lawsuits are filed only for certain medical errors. Some argue that the number of lawsuits would be reduced if communication between patients and health care professionals improves and reduces mistrust and unrealistic expectations.

Many in academic and policy institutions are looking carefully at the causes behind the number and size of medical errors and medical malpractice claims both nationally and in Massachusetts. Although this document presents many of the ideas proposed to reform the tort or medical systems, it does not take any position or analysis on the value or cost of any of the proposals beyond the arguments that have been made by those advocating or opposing a certain idea.

This report does look at the relative disparity in medical malpractice premiums by medical specialty and the potential impact that this may be having on Massachusetts' health care delivery systems. Concentrating on the testimony of obstetricians and gynecologists who presented testimony at the Division's hearings, it appears that the cost of medical malpractice relative to their overall income, when combined with the stress of their own professional work, may be affecting the number of obstetricians and gynecologists practicing in Massachusetts. As with other reform ideas, this document presents ideas proposed to address this disparity in medical malpractice premiums and does not take any position on the value or cost of any of the proposals that are presented beyond presenting arguments both in favor and opposed to the options.

Of special concern during the review, medical malpractice premiums are claimed to disproportionately affect obstetricians/gynecologist relative to their incomes. While their premiums are high due to the actuarial experience relative to their income, there should be further consideration to ways that would

reduce claims specific to these specialties, including further analysis of trust funds similar to what exists in Virginia that would address birth injury claims.

It is clear that the issues that have been raised by many about medical malpractice insurance are complicated and are also about our overall system of delivery health care services. While many are searching for ideas that will improve patient safety and lower medical malpractice premiums, more research will be needed to determine what may be the best course of action and the projected costs of those actions.

Appendix A-1: Medical Malpractice Insurance Companies

The following list identifies the admitted insurance companies that reported Massachusetts premium revenue for medical malpractice coverage during 2007: [110]

Company Name	**Domicile**
ACE American Insurance Company	PA
American Alternative Insurance Corporation	DE
American Casualty Company of Reading, Pennsylvania	PA
American Home Assurance Company	NY
American Insurance Company	OH
Chicago Insurance Company	IL
Church Mutual Insurance Company	WI
Connecticut Medical Insurance Company	CT
Continental Casualty Company	IL
(The) Doctors' Company	CA
Fortress Insurance Company	IL
General Insurance Company of America	WA
Granite State Insurance Company	PA

Medical Professional Mutual Insurance Company	MA
Medical Protective Company	IN
National Casualty Company	WI
National Union Fire Insurance Company of Pittsburgh, PA	PA
NCMIC Insurance Company	IA
Pharmacists Mutual Insurance Company	IA
Platte River Insurance Company	NE
Podiatry Insurance Company of America (Mutual Company)	IL
Professional Solutions Insurance Company	IA
Proselect Insurance Company	MA
State Farm Fire and Casualty Company	IL

Appendix A-2: Medical Malpractice Surplus Lines Carriers

The following list identifies the surplus lines carriers that reported Massachusetts premium revenue for medical malpractice coverage during 2007: [111]

Admiral Insurance Company	DE
Allied World Assurance Company (U.S.), Inc.	DE
American Intl. Specialty Lines Insurance Company	IL
Arch Specialty Insurance Company	NE
Aspen Specialty Insurance Company	ND
Chubb Custom Insurance Company	DE

Columbia Casualty Company	IL
Darwin Select Insurance Company	AR
Essex Insurance Company	DE
Evanston Insurance Company	IL
General Star Insurance Company	CT
Homeland Insurance Company of New York	NY
Houston Casualty Company	TX
Illinois Union Insurance Company	IL
Interstate Fire and Casualty Company	IL
James River Insurance Company	OH
Landmark American Insurance Company	OK
Lexington Insurance Company	DE
National Fire & Marine Insurance Company	NE
Professional Underwriters Liability Insurance Company	UT
ProNational Insurance Company	MI
Steadfast Insurance Company	DE
Western World Insurance Company, Inc.	NH

Appendix A-3: Medical Malpractice Risk Retention Groups

In Massachusetts, the following Risk Retention Groups (RRGs) reported Massachusetts premium revenue for medical malpractice coverage during 2007: [112]

Company Name	Domicile
Allied Professionals Insurance Co. (RRG)	AZ
American Association of Orthodontists Insurance Co. (RRG)	VT
American Excess Insurance Exchange (RRG)	VT
Controlled Risk Insurance Co. of VT, Inc. (RRG) [aka, CRICO]	VT
Eastern Dentists Insurance Co. (RRG)	VT
Green Hills Insurance Co. (RRG)	VT
Healthcare Industry Liability Reciprocal Co. (RRG)	DC
OMS National Insurance Co. (RRG)	IL
Ophthalmic Mutual Insurance Co. (RRG)	VT
Preferred Physicians Medical RRG, Inc.	MO

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[1] 243 CMR 2.07(16).

[2] M.G.L. c .175, §193U.

[3] Numbers of licensed health care professionals as reported to the Division of Insurance by the following agencies: Board of Registration in Medicine; Department of Professional Licensure and Division of Health Care Quality in the Department of Public Health; and the Department of Mental Health. The reported statistics reflect the number of licensed health care professionals; the number actively practicing in a profession may be smaller than the number reported.

[4] Numbers of licensed facilities and programs as reported to the Division of Insurance by the Department of Professional Licensure and Division of Health Care Quality in the Department of Public Health. While the reported statistics reflect the number licensed, the number actively operating may be lower.

[5] The Board of Registration in Medicine coordinates licensing doctors (MDs and DOs) and acupuncturists.

[6] The Division of Health Professions Licensure within the Department of Public Health coordinates the licensure for Dentists; Genetic Counselors; Nursing; Nursing Home Administrators; Perfusionists; Pharmacy; Physician Assistants; and Respiratory Care.

[7]Boards of Registration in the Office of Consumer Affairs and Business Regulation coordinate the registration of Allied Health Care professionals (*i.e.*, Athletic Trainers, Occupational Therapists, Occupational Therapist Assistants, Physical Therapists, Physical Therapist Assistants, Physical Therapy Facilities); Allied Mental Health Care professionals (*i.e*., Mental Health Counselors, Marriage and Family Therapists, Rehabilitation Counselors, Educational Psychologists); Certified Health Officers; Chiropractors and Chiropractic Facilities; Dietitians and Nutritionists; Dispensing Opticians; Hearing Instrument (Hearing Aid) Specialists;Massage Therapist/Practitioners, Massage Therapy Salons, and Massage Therapy Schools; Optometrists; Psychologists; Licensed Independent Clinical Social Workers, Licensed Certified Social Workers, Licensed Social Workers, and Licensed Social Worker Associates; and Audiologists, Audiologist Assistants, Speech Pathologists and Speech Pathologist Assistants.

[8]The Department of Mental Health licenses private mental health hospitals and clinics.

[9]The Department of Public Health licenses hospitals, nursing/rest homes, long-term care facilities, clinics, home health care agencies, hospices, ambulances, nursing service agencies and mammography facilities.

[10] M.G.L. c. 175, §193U. The commissioner of insurance may also designate other categories as eligible when they are also eligible to be ceded to the medical malpractice reinsurance plan

[11] 243 CMR 2.07(16).

[12] 233 CMR 4.04.

[13] Section 6 of Chapter 362 of the Acts of 1975.

[14] "Medical Malpractice: Implication of Rising Premiums on Access to Health Care," General Accounting Office, August 2003, p. 10.

[15] In Massachusetts, only one company - the MMJUA's successor - is required to offer "occurrence-based" and "claims-made" coverage, while other companies have switched to "claims-made" policies.

[16] Chapter 330 of the Acts of 1994 created M.G.L. c. 175, § 193U. This law was further amended - Chapter 372 of the Acts of 1998 - to make clear that the coverage offered to each provider must be available at least at a certain standard level as defined in the rules of operation of the medical malpractice reinsurance plan.

[17]For this report, the Division surveyed companies writing significant levels of coverage in other states and none of the surveyed companies expressed interest to enter this market due to their lack of experience at this time in this market.

[18] Liability Risk Retention Act of 1986, 15 U.S.C.§ 3901, with related M.G.L. c. 176L.

[19] Founding members of the Risk Management Foundation eligible for CRICO coverage include:

Beth Israel Hospital Association;	Judge Baker's Children Center, Inc.;

Brigham and Women's Hospital;	Massachusetts Eye and Ear Infirmary;
Cambridge Health Alliance ;	Massachusetts General Hospital;
CareGroup, Inc.;	Massachusetts Institute of Technology;
Children's Hospital Corporation;	McLean Hospital;
Dana-Farber Cancer Institute, Inc.;	Mount Auburn Hospital;
Faulkner Hospital;	New England Baptist Hospital;
Harvard Pilgrim Health Care, Inc.;	New England Deaconess Hospital Corporation;
Harvard School of Dentistry;	Newton-Wellesley Hospital;
Harvard School of Public Health;	North Shore Medical Center;
Harvard University Medical School;	Partners HealthCare System, Inc.;
Harvard University Health Services;	Presidents/Fellows of Harvard University; and
Harvard Vanguard Medical Associates, Inc.;	Spaulding Rehabilitation Hospital.
Joslin Diabetes Center, Inc.;	

[20] National Practitioner Data Bank 2006 Annual Report, Table 13, Mean and Median Medical Malpractice Payment and Mean and Median Delay Between Incident and Payment by State, 2006 and Cumulative Through 2006 - Physicians*, p.74.

[21] **Best's Aggregates & Averages** , Property/Casualty, United States & Canada, 2008 Edition, comparing earned premium and losses plus defense expenses net of reinsurance on p.361 and direct earned premium and losses plus defense expenses on p. 363.

[22] National Practitioner Data Bank 2006 Annual Report, Table 13, Mean and Median Medical Malpractice Payment and Mean and Median Delay Between Incident and Payment by State, 2006 and Cumulative Through 2006 - Physicians*, p.74.

[23] Marcus, Mary Brophy, "Healthcare's Perfect Storm", U.S. News &World Report, July 1, 2002, pp. 39-40.

[24] (J. Robert Hunter, Americans for Insurance Reform, "Medical Malpractice Insurance: Stable Losses/Unstable Rates,"

[25] Public Citizen, Quick Facts on Medical Malpractice Issues, see www.citizen.org/congress/civjus/medmal/articles.cfm?ID=9125, visited on 12/23/08.

[26] General Accounting Office, Medical Malpractice Insurance: Multiple Factors Have Contributed to Increased Premium Rates, June 2003, p.32.

[27] Robert P. Hartwig, Ph.D., CPCU, Medical Malpractice Insurance, Insurance Information Institute, Insurance Issues Series, June 2003, Volume 1, Number 1, p. 5, see http://www.ama-assn.org/, visited on 12/23/2008.

[28]The National Practitioner Data Bank (NPDB) of the federal Health and Human Services agency maintains statistics of medical malpractice claim payments made by state. The noted statistics were taken from Table 11 from the NPDB 2006 Annual Report, p.72.

[29]Figure 15 from the NPDB 2006 Annual Report

[30]Rates presented by ProMutual that are being charged across six Northeast states for the same level of claims-made coverage. The presented chart is for the 25 highest rated specialty classes in Massachusetts.

[31] Compendium of Testimony & Related Information Docket M2008-01 ("Compendium "), Section 6.1, Written Statement of Senator Richard T. Moore, Pg 12.

[32] Statement of Angela Aslami M.D., Division of Insurance, 7Docket M2008-01, October 3, 2008. Transcript Volume 1 (Tr. 1) at. 57.

[33] Statement of Matt Rearwin, Worcester City Hall, Docket M2008-01, October 8, 2008 Tr. 2 at 30-37.

[34] See Medical Malpractice: A Preventive Approach, by William O. Robinson, M.D., U. of Washington Press, 1984.

[35] Beckman HB, Markakis et al. "The doctor-patient relationship and malpractice: Lessons from plaintiff depositions." Archives of Internal Medicine 1994; 154: 1365-1370 and Levinson W, Roter DL, et al. "Physician-patient communication: The relationship with malpractice claims among primary care physicians and surgeons." *JAMA* 1997; 277: 553-559.

[36] Hyman, David A. and Silver, Charles, "Speak Not of Error," Regulation, Spring 2005, p. 55.

[37] Sloan, Frank and Chepke, Lindsey, "From Medical Malpractice to Quality Assurance," Issues in Science and Technology Online, University of Texas at Dallas, Spring 2008, see www.issues.org/24.3/sloan.html, visited on 12/23/2008.

[38] Among the many looking at improving systems of care, One state council, the Massachusetts Health Care Quality and Cost Council, has a Patient Safety Committee devoted to examining medical systems and ways to improve overall patient safety.

[39]Improving Malpractice Prevention and Compensation Systems (IMPACS), Project Dir, Robert M. Berenson, M.D., Robert Wood Johnson Foundation, September 2007 at www.rwjf.org/reports/npreports/impacs.htm.

[40] "The Forgotten Third: Liability Insurance and The Medical Malpractice Crisis", **William M. Sage, *Health Affairs* , 23, no. 4 (2004), p. 20.**

[41] According to According to M.G.L. 231, §85K, "if the tort was committed in the course of any activity carried on to accomplish directly the charitable purposes of such corporation, trust, or association, liability in any such cause of action shall not exceed the sum of twenty thousand dollars exclusive of interest and costs.

[42] Board of Registration in Medicine regulation 243 CMR 2.07(16) establishes the medical malpractice insurance requirement for medical doctors; Division of Professional Licensure regulation 233 CMR 4.04 establishes the medical malpractice insurance requirement for chiropractors.

[43] Jacobi, John V., "Quality Control, Enterprise Liability, and Disintermediation in Managed Care," The Journal of Law, Medicine and Ethics, volume 29, No. 3&4, 2001.

[44] American College of Physicians, Government Affairs and Public Policy, Beyond MICRA: New Ideas for Liability Reform. Available at http://www.annals.org/cgi/content/full/122/6/466

[45] Kohlberg, Kenneth R., "Modern Reflections on Charitable Immunity," Massachusetts Bar Association, Massachusetts Law Review, Volume 89, Number 4, 2006. Available at http://www.massbar.org/for-attorneys/publications/massachusetts-law-review/2006/v89-n4/modern-reflections-on-charitable-immunity

[46] According to M.G.L 231, §60B, the tribunal is charged to determine "if the evidence presented if properly substantiated is sufficient to raise a legitimate question of liability appropriate for judicial inquiry or whether the plaintiff's case is merely an unfortunate medical result, the results of which are admissible at trial." Any information presented to the tribunal may be submitted as evidence to the lawsuit.

[47]According to M.G.L 260, §4 and M.G.L 231§60D, "malpractice actions are to be filed within three years of the date of the act or omission or, if later, three years of its discovery, with the exception of: (1) foreign objects left in a body, where the filing date is tied to the date the patient should have discovered the object and (2) claims related to minors under the age of six when the claim must be filed within the seven years of the act or omission and by no later than the minor's ninth birthday."

[48] According to M.G.L 231B §2, when more than one health care professional is found liable for the negligence, each defendant is individually liable for the entire amount of the judgment, and if one of the professionals is unable to pay the others are liable for the entire amount of the judgment.

[49] According to M.G.L 231, §60H. juries "shall not award the plaintiff more than five hundred thousand dollars for pain and suffering, loss of companionship, embarrassment and other items of general damages unless the jury determines that there is a substantial or permanent loss or impairment of a bodily function or substantial disfigurement, or other special circumstances in the case which warrant a finding that imposition of such a limitation would deprive the plaintiff of just compensation for the injuries sustained."

[50] According to M.G.L 231§60I, an "attorney shall not contract for or collect a contingent fee for representing any person seeking damages in connection with an action for malpractice, negligence, error, omission, mistake, or the unauthorized rendering of professional services against a provider of health care in excess of the following limits: (1) forty per cent of the first one hundred and fifty thousand dollars recovered; (2) thirty-three and one-third per cent of the next one hundred and fifty thousand dollars recovered; (3) thirty per cent of the next two hundred thousand dollars recovered; (4) twenty-five per cent of any amount by which the recovery exceeds five hundred thousand dollars."

[51]Tuerk, David G., Tort Reform Needs a Fair Trial, The Beacon Hill Institute at Suffolk University, Available at http://www.beaconhill.org/Editorials/tortoped7397.htm

[52] Testimony of Richard Brewer, ProMutual Insurance Group October 3, 2008 Tr. 1 at. 12. Testimony of Gabriel Cohn, M.D. October 3, 2008 Tr. 1 at 63..

[53] National Conference of State Legislatures at www.ncsl.org/standcomm/sclaw/StateMedliablitylaws2007.htm.

[54] Kane, Carol and Emmons, David W., "Policy Research Perspectives: The Impact of Caps on Damages. How are Markets for Medical Liability Insurance and Medical Services Affected?" American

Medical Associations, December 2005. See http://www.ama-assn.org/ama1/pub/upload/mm/363/prp200502caps.pdf.

[55] Seehttp://www.injuryboard.com/help-center/articles/tort-reform-and-the-effect-of-medical-malpractice-caps.aspx

[56]National Conference of State Legislatures. *State Medical Malpractice Laws: Section 1*.

(http://www.ncsl.org/standcomm/sclaw/statelaws1.htm, accessed 13 October 2005.)

[57] "Liability; Joint and Several Liability," American Academy of Family Physicians. Available athttp://www.aafp.org/online/etc/medialib/aafp_org/documents/policy/state/liability-joint.Par.0001.File.tmp/stateadvocacy_Liability_Joint%20and%20Several.pdf