

The Impact of New Jersey Physicians' Perceptions of Medical Malpractice Insurance on Access to and Delivery of Medical Care in the State: Results of a Statewide Survey

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During the last medical malpractice insurance crisis, many U.S. physicians faced significant problems with medical malpractice liability insurance. Despite these well known problems, little is known about how this crisis affected access to and delivery of care. Physicians practicing in New Jersey were surveyed regarding changes in health care delivery by service type and specialty, perceived changes in medical malpractice premiums, and the effect of these changes in premiums on physicians' perceptions of service delivery and practice satisfaction. These physicians' perceptions had a major impact on the availability and delivery of health care services in the state.

INTRODUCTION

In 2003 the United States found itself in the depths of a medical malpractice insurance (MMI) crisis. Twelve states (including New Jersey) were listed as being in "critical" condition, and another 30 were given a "guarded" prognosis with regard to MMI (Mello, Studdart and Brennen, 2003; American Medical Association, 2003). Throughout these states, substantial increases in MMI premiums, departure of physicians, and closing of health care facilities, particularly emergency departments, were reported (Albert, 2003; Hinkelman, 2003; HHS 2002). In fact, in February of 2003, in response to this medical malpractice crisis, approximately 70% of New Jersey physicians conducted a "work stoppage" (Hudgins, 2003). Although this was hardly the first MMI crisis in recent history (Inglehart, 1986; Danzon, 1986), the perceived inability of physicians to find and/or escalations in the cost of MMI, combined with additional restrictions on provider reimbursement (McBride and Mueller, 2002; Hurley, Crawford and Praeger, 2002), resulted in the widespread perception of a crisis in MMI (Perry, Massey and Mahar, 1998). Between 1996 and 2000, net physician income decreased nationally for all physicians except for obstetricians (Rodwin, Chang and Clausen, 2006), who paid more for MMI than any other physician specialty (Rodwin, et al., 2008). Physicians consistently reported concern over malpractice issues, particularly with respect to cost and availability (Carrier, et al., 2010), and intense pressure to practice defensive medicine (Studdart, et al., 2005). The risk of being sued may by itself create a tangible fear among physicians, as among high-risk specialties the proportion of physicians with a malpractice claim was quite high following the 1996-2000 time period (Jena, et al., 2011). Despite the breadth and depth of the MMI crisis and the extensive media coverage it received, only a few studies (e.g., Brooks, et al., 2004, 2005; Mello, et al., 2007) appear to have addressed the impact of the changing availability and cost of MMI on access to health care services.

METHODS

A random sample of 1000 office-based, practicing physicians in New Jersey was obtained from American Medical Information (AMI), a Division of Info USA, 5711 S. 86th Circle, Omaha NE 68046. Surveys were mailed in October of 2005, and data collection was continued until January of 2006. The survey was a modified version of one used previously (Brooks. et al., 2004) which the authors graciously provided. The Brooks. et al. (2004) survey included questions on physician and patient demographics, physicians' training and scope of practice, physicians' satisfaction with the practice of medicine and their future practice plans, and physicians' perceptions of recent changes in services offered and changes in their MMI premiums and availability. In addition to these previously asked questions, survey participants were asked about circumstances under which practicing physicians might be willing to become hospital employees (assuming the hospital paid for their MMI). The purpose of the study was explained in a cover letter in which the physicians were asked to complete and return the survey via a prepaid envelope provided. No incentive to return the survey was offered. The study was approved by the Institutional Review Board of Monmouth University, West Long Branch, NJ.

RESULTS

Demographic and practice characteristics of the 148 respondents are displayed in Table 1. Overall, the mean reported age was 50.8 years (range, 30-76 years). Of the 145 respondents who identified themselves by gender, 81.4% were male. Of the 146 respondents who identified themselves by race/ethnicity the vast majority (86.3%) were white, while 2.0 were African American, 8.9% were Asian, and 2.7% were other. Physicians reported having been practicing in their current community for a mean of 8.4 years (range, 2 to 50 years). Overall, 28.8% of the respondents were practicing in a primary care field (family medicine, 8.8%; internal medicine, 10.8%; pediatrics, 8.8%; and obstetrics/gynecology, 12.2%). In addition, 30.4% reported spending most of their time in a surgical area (general surgery, 2.0%; surgical subspecialty, 28.4%); 16.2%, in a medical specialty; and 15.5% in some other area of medicine. Physicians' perceptions of patient composition of their practices included 35% covered by Medicare, 53% covered by private insurance, 20% covered by Medicaid, and 8% self-paying. All respondents stated that they would accept new private-pay patients (3 individuals did not respond to this question); 88% would accept new patients covered by Medicare; and only 34.5% would accept new patients covered by Medicaid. For additional detail, see Table 1:

TABLE 1
DEMOGRAPHICS AND PRACTICE CHARACTERISTICS OF RESPONDING PHYSICIANS*

Demographics of Respondents	Results**
Age, mean (range), years	50.8 (30 – 78)
Male	118/145 (81.4%)
Race/ethnicity	
White	126 (86.4%)
Asian	13 (8.9%)
African American	3 (2%)
Other or unknown	4 (2.7%)
Practice characteristics	
Time in private practice, mean (range), years	18.4 (2 – 50)
Specialty***	
Family medicine	13 (8.8%)
Internal medicine	16 (10.8%)
Pediatrics	13 (8.8%)
OBGYN	18 (12.2%)
General surgery	3 (2.0%)
Surgical specialty	42 (28.4%)
Medical specialty	24 (16.2%)
Other****	23 (15.5%)
Patient race/ethnicity, mean	
White	69.1%
African American	18.1%
Asian	8.9%
Other/unknown	3.1%
Payer type, mean**	
Private insurance	53%
Medicare	35%
Medicaid	20%
Private pay	8%

*Unless otherwise noted, data are expressed as number (percentage) of respondents

**Because of rounding and omission of particular items by respondents, percentages may not sum to 100%

***Based on the most time spent in practice as reported by respondents

****Includes all other specialties, physicians primarily in administrative roles, and unknown specialties

CHANGES IN HEALTH CARE SERVICES

Overall, 62 (41.9%) of 148 responding physicians stated that in the past year they had eliminated or decreased the provision of some types of patient services. Trends in a select group of these services are outlined in Table 2. Reported elimination of services was particularly frequent with regard to procedural services (i.e., deliveries and hospital-based services). For example, 42.1% of those physicians who performed obstetrical services reported that they had eliminated performing vaginal deliveries, and the same percentage reported that they had eliminated performing cesarean sections. Delivery of mental health services was reported to have been decreased or eliminated by 39.2% of respondents. Overall, hospital-based surgical procedures had decreased or been eliminated by 34.2% of the respondents, and 46.6% decreased or eliminated emergency department coverage. For additional detail, see Table 2:

TABLE 2
TRENDS IN HEALTH CARE SERVICES

Service	No. of Respondents	Increased	Percentage of Respondents*		
			Unchanged	Decreased	Eliminated
Vaginal deliveries	38	13.2%	44.7%	NR**	42.1%
Caesarian sections	38	18.4%	39.5%	NR**	42.1%
Endoscopic procedures	60	30.0%	35.0%	10.0%	25.0%
Hospital-based surgical procedures	109	12.8%	44.0%	20.4%	13.8%
Emergency department coverage	103	4.9%	48.5%	27.2%	19.4%
Mental health services	51	5.9%	54.9%	11.8%	27.5%
Radiographs	49	12.2%	61.2%	10.2%	16.3%
Office-based surgical procedures	103	16.5%	51.5%	19.4%	12.6%
Vaccine administration	51	9.8%	56.9%	21.6%	11.8%
Papanicolaou smears	55	21.8%	62/7%	7.8%	13.7%
Electrocardiograms	52	5.8%	76.5%	2.0%	17.6%

*Because of rounding and omission of particular items by respondents, percentages may not sum to 100%

**No response

Trends in the delivery of selected health care are given in Table 3. All physicians except pediatricians reported over 50% decrease in the provision of some services: family practitioners (100%), internists (60%), obstetricians (83.3%), medical specialists (83.3%), general surgeons (100%), and surgical specialists (94.1%). Pediatricians reported a 36.4% decrease in the provision of some services. Noteworthy also was the substantial decrease in both office-based and hospital-based procedures by internists, and both medical and surgical specialists. Over half of the physicians responding to the survey (55.5%) reported a decrease or elimination of some services during the past year. For additional detail, see Table 3:

TABLE 3
DECREASE OR ELIMINATION OF SERVICES AND PROCEDURES
BY PHYSICIAN SPECIALTY

Specialty*	Decreased or Eliminated Any Services in Last Year, No. (%)	Decreased or Eliminated Services, No./Total No. of Respondents					
		Cesarean Section	Vaginal Delivery	Endoscopy	Hospital-based Surgical Procedures	Mental Health	Office-based Surgical Procedures
Fam. Med.	15/15 (100%)	3/15	3/15	4/15	5/15	2/15	5/15
Int. Med.	12/20 (60%)	2/7	2/7	8/13	11/22	5/12	9/20
Pediatrics	4/11 (36.4%)	0/4	1/4	1/3	1/3	1/2	1/4
OBGYN	15/18 (83.3%)	8/16	8/16	3/9	5/15	2/8	2/15
Med Spec	18/22 (81.8%)	1/4	1/4	4/14	9/18	1/8	6/15
Gen. Surg.	10/10 (100%)	2/2	2/2	2/4	1/9	2/2	1/8
Surg. Spec.	32/34 (94.1%)	3/4	3/4	3/8	15/32	4/7	10/28

*Abbreviations: Fam. Med. = family medicine; Int. Med. = internal medicine; OBGYN = obstetrics/gynecology; Med. Spec. = medical specialist; Gen. Surg. = general surgery; Surg. Spec. = surgical specialist

MMI COVERAGE AND PREMIUMS

Virtually all, 147 of the 148 physicians (99.3%) responding, reported that they currently had MMI. The sole physician who reported no malpractice insurance noted that he had recently retired.

When asked about the percentage of change in their MMI premiums in the past year, 119 physicians responded. The mean increase in their premiums was 35.2% (SE, 3.8%, range -7% to 300%). One obvious outlier response of 147,000% increase in MMI premium was not included in these calculations. When assessed by distribution, 13.4% of physicians reported at least a 50% increase, 2.5% saw at least a 100% increase, and only 3 (2.5%) reported an increase of over 100% in premiums in the past year.

SATISFACTION AND FUTURE PRACTICE PLANS

When asked about satisfaction with their current medical practice, 16 (10.8%) of 145 respondents stated they were "very satisfied"; 47 (31.8%) were "somewhat satisfied"; 19 (12.8%) were "neutral"; 47 (31.8%) were "somewhat dissatisfied"; and 16 (10.8%) were "very dissatisfied." Those physicians who stated that they were somewhat or very dissatisfied with their current medical practice were significantly more likely to have indicated that they had decreased or eliminated services ($F = 17.018$; $P = 0.001$) and had higher (but not significantly higher) mean increases in their MMI premiums ($t = 1.268$; $P = 0.262$).

When questioned about plans for continuing to practice in their current community, 12 (8.5%) of 141 respondents stated that they would be leaving within 2 years and 19 (12.8%) stated that they would be leaving within 2 to 4 years. For those physicians who stated that they would be leaving within the next 2 years, 2 (16.7%) stated it was because of practice issues; early retirement; 2 (16.7%), planned retirement; and 8 (66.7%), family or personal issues. No respondents indicated early retirement as a reason for leaving their current community of practice. Furthermore, when these physicians who planned to leave their current community were asked "to what extent has the inability to *find* MMI played a role in your

decision to leave your community," 3 (27.2) % stated "a lot," and 2 (18.2) % stated "some." When the same group was asked "to what extent has the inability to *pay* for MMI played a role in your decision to leave your community," 5 (41.7%) % said "a lot" and 3 (25%), "some."

CONCLUSIONS

Sixty two (41.9%) of 148 physicians reported decreasing or eliminating health care services. Overall, 16 (42.1%) of 38 decreased or eliminated vaginal deliveries; 16 (42.1%) of 38, cesarean sections; 37 (33.9%) of 109, hospital-based surgical procedures; 48 (46.6%) of 103, emergency department coverage; 21 (35.0%) of 60, endoscopic procedures; 48 (46.6%) of 103, office-based surgical procedures; and 20 (39.2%) of 51, mental health services. Elimination of services was highest for general surgeons (78.4%), surgical specialists (73.6%), and obstetricians /gynecologists (70.2%). Premiums for medical malpractice insurance were believed by respondents to have increased by over 35%. Of those respondents planning to move their practice (35 of 142) or retire (29 of 141) within the next 4 years, 36 of 68 (52.9) reported that the inability to find medical liability insurance played a role in their decision, and 51 of 68 (75.0%) reported that difficulty in paying for medical liability insurance played a role in their decision.

These findings strongly indicate that a decrease or elimination of health care services occurred over a wide range of procedures and specialties in New Jersey. This was particularly true of hospital- and office-based procedures, and less so with diagnostic tests such as radiographs, electrocardiograms, and Papanicolaou smears. Although all specialties studied saw some loss in services, elimination of services was highest for medical and surgical specialists, and obstetricians/gynecologists.

Over one third of New Jersey physicians decreased or eliminated surgical and other hospital-based procedures, office-based procedures, and emergency department coverage during last MMI crisis in New Jersey. Services appeared to have been significantly reduced by a variety of physicians. For example, hospital-based surgical procedures were decreased approximately 50% by surgical specialists, internists, and medical specialists, while internists, family practitioners, and medical and surgical specialists reported decreasing office-based procedures by 35% or more. This change in service availability may have made it more difficult for some New Jersey patients to obtain more complex procedures and surgical care. Similarly, the decreased willingness of New Jersey physicians to provide emergency department coverage may have placed an additional burden on the emergency departments of New Jersey hospitals, where an increase in patient visits, particularly by the elderly, was already occurring (Reeder, et al., 2002).

A particularly important finding of this study is the 42.1% of respondents who reported elimination of obstetrical services, both vaginal deliveries and cesarean sections. This finding confirms research (Gaskins, Tietze, and Cole, 1991; Institute of Medicine, 1989; Rivers, 1998) during previous MMI crises which found an exodus of those obstetricians and family practitioners who performed deliveries. This appears to occur because of a high likelihood of actual malpractice claims and a heightened perception of vulnerability to malpractice lawsuits by physicians performing obstetrical services (Burns, Connolly, and DeGraaff, 1999). Both factors may play a role in the reported elimination of obstetrical services found in this study.

The inadequate availability of mental health services in New Jersey has been reported previously by Holstein and Paul (2008), who examined networks of mental health services professionals in two counties in New Jersey who agreed to participate in insurance plans as constituting a phantom network of providers; i.e., a network of providers existing largely "on paper." The findings in this study indicate that the situation described by Holstein and Paul (in press) continues to deteriorate, with over 39% of the physicians responding to this survey indicating that they planned to reduce mental health services/referrals, further exacerbating the difficulties citizens in New Jersey would have in finding practitioners offering mental health services.

This study also demonstrated a statistically significant correlation between dissatisfaction with medical practice decrease in medical services provided. Not statistically significant, but still suggestive, was the relationship between dissatisfaction with medical practice and increase in MMI premiums. A self-

reported MMI premium increase of 35.2% by physician respondents is consistent with other evidence of premium increases reported in states undergoing MMI market instability (“Comparison of Trends”, 2002; Hope, 2003). At approximately the time when this data was gathered, increases in MMI premiums in the United States were in the range of 20% to 25% for internists, obstetricians, and general surgeons (“Comparison of Trends”, 2002; Hope, 2003). Although the reasons behind these rises in medical MMI premiums remains a subject of considerable debate, the General Accounting Office has determined that the largest contributor to increasing MMI premiums were the losses incurred from malpractice claims (“General Accounting Office”, 2003).

Previous research (Pathman, Konrad, and Agnew, 2003) demonstrated a strong correlation between some physicians’ prediction of future practice plans and their actual departure from a community. This study indicates that many physicians in New Jersey have decided or are at least strongly considering leaving practice in the near future. In many cases, this appears to be directly related to difficulty with finding or paying for MMI. All specialties had attrition rates that should be worrisome, particularly when the length of the education pipeline required for the replacement of specialist physicians is considered, and that this pipeline may itself also be affected by MMI pressures.

The information reported by responding physicians in New Jersey demonstrated an apparent decrease in offerings of critical services. These results imply a significant perceived decrease, at least at the time this data was gathered, in access to care in New Jersey. It appears that changes to the MMI marketplace may be required to reverse the trend of decreasing availability of medical care in the state of New Jersey.

LIMITATIONS

Several limitations of this study deserve mention. Most important is that respondents in this study might have been more adversely affected by the MMI situation could have been more likely to participate. Second, survey responses were based on self-reported estimates and were not objectively and independently verifiable. To some extent, confirmation/disconfirmation of self-reported data and more objectively obtained data could be valuable. Bearing this in mind, some self-reported data (e.g., increases in MMI premiums, decreases in services provided), might well have been overestimated. However, it is widely believed in business that “perception is reality” (Williams, 1993; Neale and Fullerton, 2010), especially in times of crisis (Hagan, 2011). Physicians, being only human, are likely to make decisions based upon their individual perceptions of any situation, and the personal significance of the MMI crisis will be evaluated by each physician when making any decision. Thus, “objective” data may or may not be an important consideration in physicians’ decisions. This is especially true in studying MMI effects on physician behavior as this study did, as perceptions of a MMI crisis have been shown to be at variance with actual MMI rate increases (Rodwin, Chang and Clawson, 2006), but physicians’ perceptions would still be expected to drive their behavior. The sample size and response rate were both modest, implying that the results obtained may not be representative of all practicing physicians in New Jersey. Finally, the results of this New Jersey-based study should not be generalized to other states.

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REFERENCES

- Albert, T. (2003). New Jersey Physicians Stop Work in Biggest Liability Protest Yet. *American Medicine News*. Retrieved October 22, 2011 from <http://www.ama-assn.org/amednews/2003/02/17/prl10217.htm>.
- American Medical Association (2003). The Medical Liability Crisis: Talking Points. Retrieved October 22, 2011 from <http://www.dcmsonline.org/legislative/talking.htm>.

Brooks, R.G., Menachemi, N., Clawson, A. and Beitsch, L. (2005). Availability of the Professional Liability Market on Access to Health Care. *Archives of Internal Medicine*, 165, (18), 2136-2141.

Brooks, R.G., Menachemi, N., Hughes, C. and Clawson, N. (2004). Impact of the Medical Professional Liability Crisis on Access to Care in Florida. *Archives of Internal Medicine*, 164, 2217-2222.

Burns, L. R., Connolly, T. and DeGraaff, R.A. (1999). Impact Of Physician's Perceptions of Malpractice and Adaptive Changes on Intention to Cease Obstetrical Practice. *Journal of Rural Health*, 15, (2), 134-146.

Carrier, E.A., Reschovsky, J.D., Mello, M. M., Mayrell, R.C. and Katz, D.R. (2010). Physicians' Fears of Malpractice Lawsuits Are Not Assuaged by Tort Reform. *Health Affairs*, 1, 9(9), 1585-1592.

"Comparison of Trends" (2002). A Comparison of Trends in 2001 and 2002 Rates for Three Medical Specialties. *Medical Liability Monitor*, 27, (8-9), 1.

Danzon, P.M. (1986). New Evidence on the Frequency and Severity of Medical Malpractice Claims. *Law and Contemporary Problems*, 5, (49), 57-84.

Gaskins, S.E., Tietze, P.E. and Cole, C.M. (1991). Obstetric Practice Patterns among Family Practice Residency Graduates. *Southern Medical Journal*, 84, (8), 947-951.

"General Accounting Office" (2003). Medical Malpractice Insurance: Multiple Factors Have Contributed to Increased Premiums: GAO-03-702. Retrieved October 21, 2011 from <http://www.gao.gov/cgi-bin/getrpt?GAO-03-702>

Hagan, L.M. (2011). Building the Case for Educating Business Leaders on the Importance of Public Relations. *American Journal of Business Education*, 4, (8), 43-48.

HHS (2002). *Confronting the New Healthcare Crisis: Improving Healthcare Quality and Lowering Costs by Fixing Our Medical Liability System*. US Department of Health and Human Services Office of the Assistant Secretary for Planning and Evaluation. Washington, DC: Department of Health and Human Services; July 24, 2-4.

Hinkelman, M. (2003). Physicians Are Still Fleeing Pennsylvania and Its Malpractice Costs," *Philadelphia Daily News*. April 16. Retrieved August 1, 2003 from <http://www.philly.com/mld/dailynews/news/local/5643480.htm?1c>.

Holstein, R.M. and Paul, D.P. III (2008). Finding In-Network Mental Health Services: A Phantom Network Odyssey. In D. Emmitt (Ed.), *World Neighbors Sharing Strategies to Transform Health Care* (pp. 151-158).

Holstein, R.M. and Paul, D.P. III (2012). Phantom Networks' of Managed Behavioral Health Providers: An Empirical Study of their Existence and Effect on Patients in Two New Jersey Counties. *Hospital Topics*, 90, (3), 65-73.

Hope, P.A. (2003). Reforming The Medical Professional Liability Insurance System. *American Journal of Medicine*. 114, (7), 622-624.

Hudgins, E. (2003). Sidebar: New Jersey Doctors in Work Action. Retrieved August 12, 2012 from <http://www.atlassociety.org/sidebar-new-jersey-doctors-work-action>.

- Hurley R.E., Crawford, H. and Praeger, S. (2002). Medicaid and Rural Health Care. *Journal of Rural Health*, 18, (supplement), 164-175.
- Inglehart, J.K. (1986). The Professional Liability Crisis: The 1986 Duke Private Sector Conference. *New England Journal of Medicine*, 315, (17), 1105-1108.
- Institute of Medicine (1989). *Medical Professional Liability and the Delivery of Obstetrical Care*. Volumes 1-2. Washington, DC: National Academy Press.
- Jena, A.B., Seabury, S., Lakdawalla, D. and Chandra, A. (2011). Malpractice Risk According to Physician Specialty. *New England Journal of Medicine*, 365, (7), 629-636.
- McBride, T.D. and Mueller, K.J. (2002). Effect of Medicare Payment on Rural Health Care Systems. *Journal of Rural Health*, 18, (supplement), 147-163.
- Mello, M.M., Studdert, D.M. and Brennan, T.A. (2003). The New Medical Malpractice Crisis. *New England Journal of Medicine*, 348, (23), 2281-2284.
- Mello, M.M., Studdert, D.M., Brennan, T.A. and Sage, W.M. (2007). Changes in Physician Supply and Scope of Practice During a Malpractice Crisis: Evidence from Pennsylvania. *Health Affairs*, 26, (3), w425-w435.
- Neale, L. and Fullerton, S. (2010). The International Search for Ethics Norms: Which Consumer Behaviors Do Consumers Consider (Un) Acceptable? *Journal of Services Marketing*, 24, (6), 476-486.
- Pathman, D.E., Konrad, T.R. and Agnew, T.R. (2003). Predictive Accuracy of Rural Physicians' Stated Retention Plans. *Journal of Rural Health*, 19, (3), 236-244.
- Perry, R.F., Massey, J.L. II, and Mahar, M.T. (1998). Insurance Status and the Decision to Seek A Legal Opinion for a Medical Malpractice Claim Without Merit. *Hospital Topics*, 76, (4), 17-24.
- Reeder T., Locascio, E., Tucker, J., Czaplinski, T., Benson, N. and Meggs, W. (2002). ED utilization: The Effect of Changing Demographics from 1992 to 2000. *American Journal of Emergency Medicine*, 20, (7), 583-587.
- Rivers, P.A. (1998). Access to Obstetrics Care for Rural Alabama Population. *International Journal of Health Planning Management*, 13, (4), 277-288.
- Rodwin, M.A., Chang, H.J., and Clausen, J. (2006). Malpractice Premiums and Physicians' Incomes: Perceptions of a Crisis Conflict with Empirical Evidence. *Health Affairs*, 25, (3), 750-758.
- Rodwin, M.A., Chang, H.J., Ozaeta, M.M. and Omar, R.J. (2008). Malpractice Premiums in Massachusetts, a High-Risk State, 1975-2005. *Health Affairs*, 27, (3), 835-844.
- Studdart, D.M., Mello, M.M., Sage, W.M., DesRoches, C.M., Peugh, J., Zapert, K., and Brennan, T.A. (2005). Defensive Medicine among High-Risk Specialist Physicians in a Volatile Malpractice Environment. *Journal of the American Medical Association*, 293, (21), 2609-2617.
- Williams, M. (1993). Perception or Reality? *Managing Service Quality*, 3, (4), 23-27.