

## MEDICAL MALPRACTICE AND THE ELDERLY<sup>†</sup>

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*Health care provides tremendous benefits, but it also creates substantial risks of unintended injury. As the most frequent users of the health care system, the elderly are disproportionately affected by iatrogenic harm. Some who experience it seek compensation for their losses in the tort system. This Article examines trends in malpractice litigation over the last twenty years, focusing on claiming activity among the elderly. Furthermore, this Article considers the distinctive impact successive waves of tort reform are likely to have had on the elderly.*

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## I. Introduction

Over the last thirty years there has been a flourishing of empirical investigation into how the medical malpractice system functions. The frame for most of this research has been system wide. To the extent studies have examined how the system performs in relation to particular subgroups of stakeholders, the focus has almost always been subgroups of providers—selected physician specialties or health care institutions. Very few studies have assessed how the system performs in relation to designated subgroups of patients or plaintiffs.

This evidence gap is particularly troubling when it comes to the elderly. The elderly are the most prevalent users of health care services; they are disproportionately likely to experience harms from medical care; and when they suffer medical injury from negligent care, the elderly may face special challenges in securing access to tort compensation.<sup>1</sup> In other words, the elderly are a vulnerable group—both as patients and prospective litigants. Yet very little is known about how they fare in medical malpractice litigation.

Imagine a study of the impact of video games on mental health that estimated only population-wide effects. We would surely question the study's value. We would wonder about effects among certain at-risk groups, such as adolescents and young adults, or players of certain types of games. Mental health effects on those players could easily be diluted or masked in aggregated analyses. The analogy is imperfect. But its point is that, given what we know about the distinctive ways in which the elderly interact with the health and legal systems, we should be careful about extrapolating findings from studies of the general dynamics of medical malpractice litigation to them.

Aware of how little research has been conducted on the experience of elderly patients in medical malpractice litigation, I used the occasion of this lecture to pull together available evidence and to add some new information from original analyses.

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1. See generally Myungho Paik et al., *How Do the Elderly Fare in Medical Malpractice Litigation, Before and After Tort Reform? Evidence from Texas*, 14 AM. L. & ECON. REV. 563 (2012) [hereinafter Paik et al.].

## II. Data Sources and Metrics

Empirical assessments of the medical liability environment use a standard set of measures: (1) the frequency with which malpractice claims are made; (2) the number of claims that result in indemnity payments to the plaintiff (via settlement or verdict); (3) indemnity payment levels among paid claims; and (4) total payments, calculated as the product of (2) and (3).<sup>2</sup> The premiums physicians pay for liability insurance coverage are another valuable indicator of the liability environment because they combine information on claim frequency and costs with insurers' forecasts about what lies ahead.

Unfortunately, none of these measures is readily available at the national level. Private companies collect information on court filings in some jurisdictions, including filings related to medical malpractice claims, and some states, such as Florida, mandate reporting of information on all closed medical malpractice claims.<sup>3</sup> Researchers persistent and lucky enough to gain access to liability insurers' internal data can access the full set of measures, but only for a defined region and physician population. The only truly national source of data on closed malpractice claims is the National Practitioner Data Bank ("NPDB").<sup>4</sup>

The NPDB is operated by the Health Resources and Services Administration, an arm of the Department of Health and Human Services.<sup>5</sup> The NPDB is a confidential repository of information on paid malpractice claims and other adverse professional actions against health care practitioners.<sup>6</sup> Malpractice payments made on behalf of practitioners must be reported, and non-reporters risk stiff penalties.<sup>7</sup>

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2. See Amitabh Chandra, *The Growth of Physician Medical Malpractice Payments: Evidence from the National Practitioner Data Bank*, 5 HEALTH AFF. 240, 241 (2005); Michelle M. Mello et al., *National Costs of the Medical Liability System*, 29 HEALTH AFF. 1569, 1570–71 (2010), available at <https://www.healthaffairs.org/doi/pdf/10.1377/hlthaff.2009.0807> [hereinafter Mello *National Costs*]; Michelle M. Mello et al., *The Medical Liability Climate and Prospects for Reform*, 312 J. AM. MED. ASS'N 2146 (2014) [hereinafter Mello].

3. See, e.g., *Professional Liability Tracking System*, Florida Office of Insurance Regulation, [https://www.floir.com/Sections/PandC/ProfLiab\\_db/index.aspx](https://www.floir.com/Sections/PandC/ProfLiab_db/index.aspx) (last visited Feb. 3, 2020).

4. *About Us*, NAT'L PRAC. DATA BANK, <https://www.npdb.hrsa.gov/topNavigation/aboutUs.jsp> (last visited Feb. 3, 2020).

5. See *id.*

6. *Id.*

7. 42 U.S.C. § 11131 (1986) (outlining the possibility of \$10,000 penalty for each unreported payment).

The NPDB's reach is limited in three main ways. First, it collects information on paid claims only, and about two-thirds of medical malpractice claims do not result in payments to the plaintiff.<sup>8</sup> Second, despite the mandate and risk of penalties, some paid claims go unreported.<sup>9</sup> In particular, there are longstanding concerns about "corporate shielding" of defendant physicians by hospitals (which are not themselves reportable entities) but the extent of such underreporting is unclear.<sup>10</sup> Finally, the NPDB captures information on claims against health practitioners, not health care institutions.<sup>11</sup> This is a non-trivial limitation for use of the NPDB in tracking litigation by the elderly because the primary defendant in many claims brought by nursing home residents is the facility.<sup>12</sup> Despite these limitations, the NPDB is widely used in malpractice research and is an especially useful as a data source for tracking trends over time.<sup>13</sup>

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8. Mello *National Costs*, *supra* note 2.

9. U.S. GEN. ACCOUNTING OFFICE, GAO-01-130, MAJOR IMPROVEMENTS ARE NEEDED TO ENHANCE DATA BANK'S RELIABILITY 4 (2000); Amitabh Chandra et al., *The Growth of Physician Medical Malpractice Payments: Evidence from the National Practitioner Data Bank*, 24 HEALTH AFF. 240, 242 (2005), available at <https://www.healthaffairs.org/doi/pdf/10.1377/hlthaff.W5.240> (comparing jury verdicts reported in the NPDB with jury verdict data from New York and California gathered from an independent source and concluding that the NPDB understated the number of verdicts by about 20%).

10. Haavi Morreim, *Malpractice, Mediation, and Moral Hazard: The Virtues of Dodging the Data Bank*, 27 OHIO ST. J. ON DISP. RESOL. 109 (2012), available at [https://kb.osu.edu/bitstream/handle/1811/76976/OSJDR\\_V27N1\\_109.pdf?sequence=1](https://kb.osu.edu/bitstream/handle/1811/76976/OSJDR_V27N1_109.pdf?sequence=1).

11. *Id.*

12. David G. Stevenson & David M. Studdert, *The Rise of Nursing Home Litigation: Findings from a National Survey of Attorneys*, 22 HEALTH AFF. 219, 219-29 (2003), available at <https://www.healthaffairs.org/doi/pdf/10.1377/hlthaff.22.2.219> (referring to Exhibit 4).

13. See Mello *National Costs*, *supra* note 2 (noting counts of paid claims understate counts of total claims (i.e., paid and unpaid) for obvious reasons. However, trends in counts of paid claims should be a reasonable proxy for trends in counts of total claims, unless the proportion of total claims that are paid is changing over time. There is little or no evidence that this has happened.).

### III. The Medical Liability Environment

Figure 1 depicts the tail end of an increase in the frequency of malpractice claims, which began in the late 1990s and peaked in 2001; median payment levels among paid claims also increased markedly through 2004, before leveling off. This period in the early 2000s was the third malpractice “crisis” of the modern era, following similar spikes in the mid-1970s and mid-1980s.<sup>14</sup> As in those earlier periods of turbulence, state legislatures responded with an array of tort reform measures designed to reduce the scale and cost of the litigation.<sup>15</sup>

The period of volatility in the early 2000s proved to be short-lived and less severe than earlier ones and, as Figure 1 shows, was followed by a decrease in the frequency of malpractice litigation. Since 2001, the number of paid claims has decreased by 58%, an average annual decrease of about 3% per year. Median payment levels were fairly flat between 2004 and 2014, before resuming a rise in recent years. High-end awards cause particular concerns in health policy community because of their potential to destabilize liability insurance markets, but they too have changed little since 2004, with the 75th percentile of payment levels holding close to \$500,000.<sup>16</sup> Available information on liability insurance premiums reinforces the story of calm:<sup>17</sup> premiums for most specialties have not increased much for more than a decade, and some specialties have enjoyed premium reductions, which is unusual.<sup>18</sup>

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14. See David M. Studdert et al., *Medical Malpractice*, 350 *NEW ENG. J. MED.* 283, 283–92 (2004), available at <https://www.nejm.org/doi/full/10.1056/NEJMhpr035470> (noting in addition to sharp increases in the incidence and/or costs of claims, malpractice “crises” are characterized by turbulence in professional liability insurance markets—specifically, premiums rapidly rise and some physicians find it difficult to obtain affordable (or any) coverage).

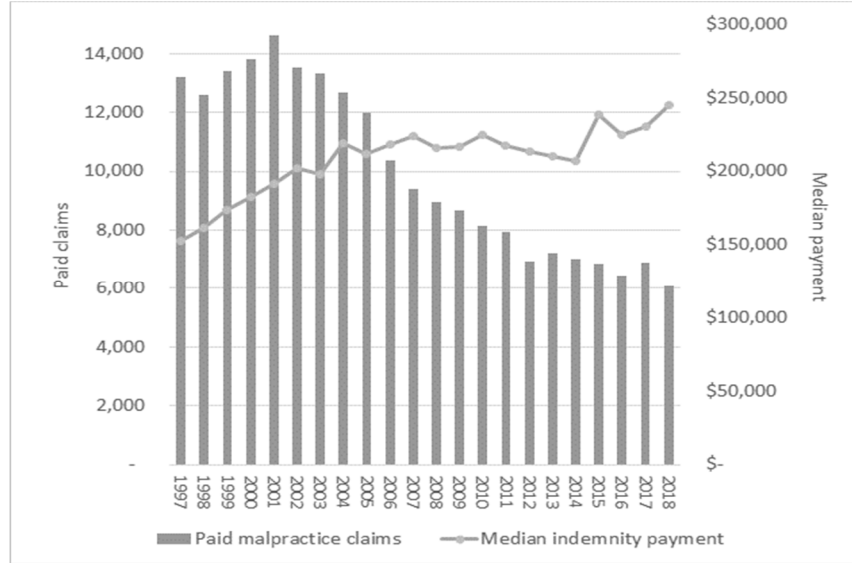
15. *Id.*

16. Author’s own calculations.

17. See Mello, *supra* note 2.

18. See *id.* at 2149–50.

FIGURE 1. NUMBER OF PAID MEDICAL MALPRACTICE CLAIMS AND MEDIAN INDEMNITY PAYMENTS BY YEAR, 1997-2018



Data Source: National Practitioner Data Bank Public Use File. Payment amounts are adjusted for inflation and expressed in 2018 dollars.

In sum, crude measures of litigation dynamics indicate a period of remarkable decline in the frequency of malpractice litigation, and relatively little change in other key measures. To what extent do these trends apply to claims brought by elderly patients and their families?

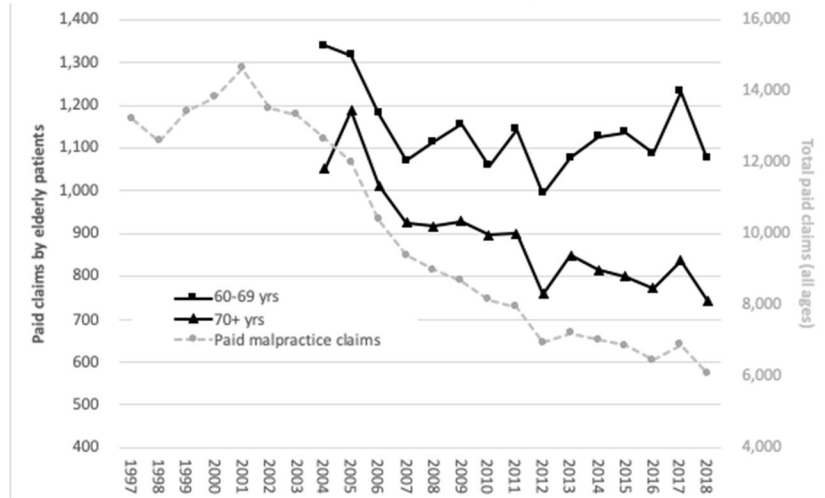
#### IV. Frequency of Malpractice Litigation Involving Elderly Patients

Figure 2 reproduces the “all claims” trend line from Figure 1 (gray line) and adds trend lines indicating annual claim counts for two specific groups of plaintiffs: patients aged sixty to sixty-nine years and patients aged seventy years or older at the time of the alleged incident (black lines). The y-axis for the all-claims count appears on the right and is rescaled by an order of magnitude to facilitate comparison with the age-group trends of interest.

Decreases in the frequency of claims by elderly patients are evident for both age groups. The decline for plaintiffs aged seventy or

older tracks the all-claims decline fairly closely, while the decline for sixty- to sixty-nine-year-olds is more modest.

FIGURE 2: NUMBER OF PAID MEDICAL MALPRACTICE CLAIMS AND MEAN INDEMNITY PAYMENTS BY YEAR, 1997-2018



Data Source: National Practitioner Data Bank Public Use File.

But before attempting to get too precise about these comparisons, we should recognize that counts are a crude way to examine claim frequency because they do not account for temporal changes in the size of the background populations. Rates do, and can therefore provide a clearer picture of the frequency with which elderly patients sue relative to patients in younger age groups.

Calculating a rate requires a denominator. What is the right denominator for understanding rates of malpractice claims? Ideally, it should indicate the “exposure” of patients to the risk of events that give rise to a malpractice claim—in other words, some measure of health care usage. Denominating in this way may be particularly important for comparisons of the claim rate of younger patients to that of older patients because the elderly use substantially more health care services.

Table 1 presents paid claim rates by age group. The rates were calculated using four different approaches. The first approach denominates simply by reference to population size in each age group;

it suggests that the claim rate among patients aged sixty-five to seventy-four years is higher than that among younger patients, and the claim rate for patients aged seventy-five or older is similar. But this is a crude denominator because it does not account for the underlying exposure that matters most—health care utilization.

Each of the three other approaches reported in Table 1 denominates by reference to a measure of health care utilization: number of inpatient stays, number of hospital days, and total inpatient costs, respectively.<sup>19</sup> The relative strengths and weaknesses of each of these utilization measures are debatable, but they tell a similar story: elderly patients appear to sue substantially less often. Compared with middle-aged patients, for example, patients aged sixty-five to seventy-four-year-old have 35–40% lower claim rates and patients aged seventy-five or older have 50–70% lower rates.

TABLE 1: RATES OF PAID CLAIMS BY AGE GROUP, 2004-2015

Age group (years)	Paid malpractice claims			
	Per million population	Per 100,000 inpatient stays	Per 100,000 hospital days	Per \$100 million inpatient costs
18 to 44	23.4	21.1	5.8	3.0
45 to 64	35.7	35.8	7.2	3.0
65 to 74	39.6	22.9	4.4	1.8
≥75	29.6	11.8	2.2	1.1

Population counts by age group come from the US Census Bureau. Inpatient measures come from the National Inpatient Sample, available at <https://www.hcup-us.ahrq.gov/nisoverview.jsp>.

These comparisons are much more informative than those that ignore the elderly's disproportionately high use of health care services, but ideally, the denominator would be even more refined. Health care utilization is still a bit crude. It captures "exposure" to the risk of injury or negligence. But that is not what the medical liability system is supposed to compensate; rather, it is supposed to compensate patients

19. Inpatient costs may be a particularly useful measure because they combine information on the number and length of inpatient visits with information on intensity of treatment, and more intense treatments probably entail greater risk of (negligent) injury.



who have been actually harmed by negligent care.<sup>20</sup> Hence, the real exposure of interest is medical injury, or medical injury due to negligence. In other words, our ideal measure of claim rates would denominate by reference to the incidence of negligent iatrogenic injury.

To illustrate the point, imagine that sixty-five to seventy-four-year-old patients had 35–40% lower rate of negligent injury than middle-aged patients, and patients aged seventy-five or older had 65–70% lower rates. Accounting for this differential incidence of injury would erase the age-group discrepancy in claim rates we observed in Table 1 and produce similar claim rates for all three groups. How plausible is it that the elderly experience substantially lower rates of injury than younger patients? It is highly implausible.

## V. Older Age as a Risk Factor for Medical Injury

Available evidence indicates that elderly patients experience substantially higher rates of medical injury than non-elderly patients.<sup>21</sup> The strongest evidence comes from the Harvard medical malpractice studies—two large-scale reviews of medical records conducted in New York in the early 1990s and in Utah and Colorado in the early 2000s.<sup>22</sup> The primary goal of these studies was to estimate rates of medical injury in hospitalized patients as a whole, but their sample sizes were large enough to support reliable estimates within certain demographic subgroups. Older age proved to be one of the largest demographic risk factors identified.

Specifically, the New York study detected rates of medical injury among patients aged sixty-five or older that were substantially higher than those in younger age groups, and rates of medical injury due to negligence that were about 50% higher.<sup>23</sup> The Utah-Colorado study

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20. *Id.* at 251.

21. Troyen A. Brennan et al., *Incidence of Adverse Events and Negligence in Hospitalized Patients: Results of the Harvard Medical Practice Study I*, 324 *NEW ENG. J. MED.* 370, 372 (1991), available at <https://pdfs.semanticscholar.org/a142/0a6c619d2572109abfb4a387f70c2fc998ff.pdf> [hereinafter Brennan et al.].

22. David M. Studdert et al., *Beyond Dead Reckoning: Measures of Medical Injury Burden, Malpractice Litigation, and Alternative Compensation Models from Utah and Colorado*, 33 *IND. L. REV.* 1643, 1643–86 (2000), available at [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=250729](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=250729) [hereinafter Studdert].

23. Brennan et al., *supra* note 21, at 372; Lucian L. Leape et al., *The Nature of Adverse Events in Hospitalized Patients — Results of the Harvard Medical Practice Study II*, 324 *N. ENG. J. MED.* 377 (1991), available at <https://www.nejm.org/doi/>

detected an even greater age disparity, with patients older than sixty-five experiencing rates of injury and preventable injury that were nearly double those of younger patients.<sup>24</sup> Other studies reinforce the general finding that the elderly experience high rates of medical injury in general and preventable medical injury in particular.<sup>25</sup>

Older age is a plausible risk factor for medical injury.<sup>26</sup> The elderly are more complex patients. They tend to have more comorbidities and their symptoms are often less clear, both of which make timely and accurate diagnoses more difficult.<sup>27</sup> Relatedly, the elderly are treated more intensively and take more drugs than younger patients.<sup>28</sup> Finally, older patients have less physiological resilience, making them more vulnerable to insults or errors that occur during care.<sup>29</sup>

## VI. Type and Severity of Medical Injury

In addition to detecting higher overall medical injury rates among elderly patients, the Harvard medical practice studies traced them to specific types of events.<sup>30</sup> The elderly were at higher risk of falls during care, adverse drug events, and complications of medical procedures; they also had higher rates of diagnostic mishaps.<sup>31</sup> In addition, some results suggested that injuries among the elderly were more likely to result in permanent injury or death.<sup>32</sup>

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10.1056/NEJM199102073240605?url\_ver=Z39.88-2003&rfr\_id=ori:rid:crossref.org&rfr\_dat=cr\_pub%3dwww.ncbi.nlm.nih.gov [hereinafter Leape et al.].

24. Eric J. Thomas & Troyen A. Brennan, *Incidence and Types of Preventable Adverse Events in Elderly Patients: Population Based Review of Medical Records*, 320 *BMJ* 741, 742 (2000), available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC27315/pdf/741.pdf> [hereinafter Thomas & Brennan].

25. Knight Steel et al., *Iatrogenic Illness on a General Medical Service at a University Hospital*, 304 *N. ENG. J. MED.* 638, 638–42 (1981), available at [https://www.nejm.org/doi/full/10.1056/NEJM198103123041104?url\\_ver=Z39.88-2003&rfr\\_id=ori:rid:crossref.org&rfr\\_dat=cr\\_pub%3dpubmed](https://www.nejm.org/doi/full/10.1056/NEJM198103123041104?url_ver=Z39.88-2003&rfr_id=ori:rid:crossref.org&rfr_dat=cr_pub%3dpubmed); D. Jahnigen et al., *Iatrogenic Disease in Hospitalized Elderly Veterans*, 30 *J. AM. GERIATRIC SOC'Y* 387 (1982), available at <https://www.ncbi.nlm.nih.gov/pubmed/7077020>.

26. Thomas & Brennan, *supra* note 24, at 743.

27. *Id.*

28. *Id.*

29. *Id.*

30. Leape et al., *supra* note 23, at 379; Thomas & Brennan, *supra* note 24, at 741

31. Leape et al., *supra* note 23, at 379; Thomas & Brennan, *supra* note 24, at 741.

32. Thomas & Brennan, *supra* note 24, at 742.

Among injuries that lead to malpractice claims, the NPDB provides limited information on typology.<sup>33</sup> A variable indicating the general nature of the allegation is available (e.g., diagnostic error, judgement error, communication error, etc.).<sup>34</sup> In age-stratified analyses of this variable, I could not detect systematic differences by age groups,<sup>35</sup> however, more fine-grained information on the types of events at issue may tell a different story.

With respect to injury severity, on the other hand, the NPDB data showed clear systematic differences.<sup>36</sup> Figure 3 shows that claims brought by the elderly involved more serious injury than those brought by younger patients. Nearly 40% of the claims by patients aged sixty to sixty-nine years and nearly half of the claims by patients aged seventy and older involved death, compared with 29% among forty to fifty-nine-year-olds. More than half of the claims by patients aged sixty years or older involved major injury or death, compared with about 40% among younger plaintiffs.

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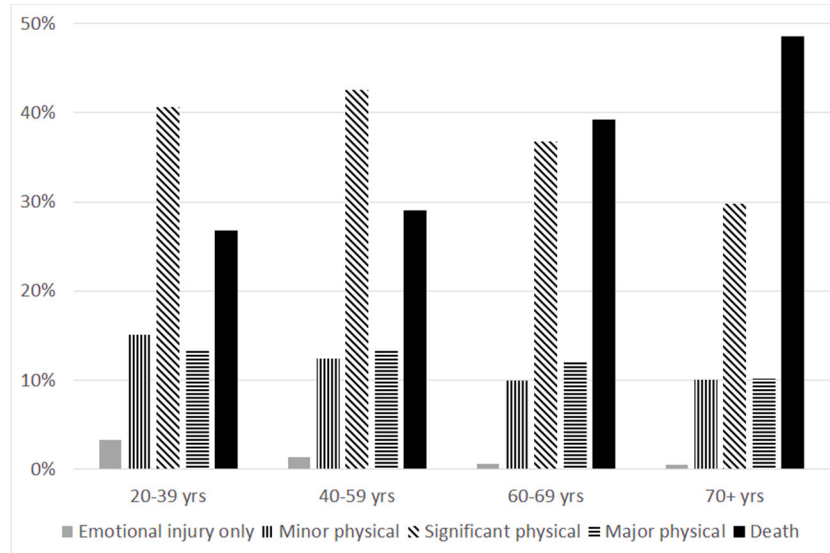
33. See NAT'L PRACTITIONER DATA BANK, *Public Use Data File*, <https://www.npdb.hrsa.gov/resources/publicData.jsp> (last visited Feb. 3, 2020).

34. See NAT'L PRACTITIONER DATA BANK, *Public Use Data File Format Specifications*, <https://www.npdb.hrsa.gov/resources/puf/puffFormatSpecifications.jsp> (last visited Feb. 3, 2020).

35. Author's own calculations.

36. Author's own calculations.

FIGURE 3: SEVERITY OF INJURY AMONG PAID CLAIMS BY AGE GROUP, 2004-18



Data Source: National Practitioner Data Bank Public Use File.

## VII. The Underclaiming Phenomenon

We can now return to the differences observed earlier in claim rates and say with some confidence that the relatively low rate observed among elderly patients cannot be explained away by lower rates of medical injury in this subpopulation. On the contrary, the rates reported in Table 1 almost certainly understate the extent of “underclaiming” among elderly patients who are injured by negligent medical care.

Results from a separate line of research bolster this conclusion. Alongside their reviews of inpatient medical records, the Harvard medical malpractice studies gathered data on malpractice claims made in relation to the episodes of care under review.<sup>37</sup> Linkage of the claims data to the medical injury data thus permitted a 360-degree examination of the relationship between medical injuries and claiming

37. A. Russell Localio et al., *Relation Between Malpractice Claims and Adverse Events Due to Negligence—Results of the Harvard Medical Practice Study III*, N. ENG. J. MED. 325 (1991).

behavior.<sup>38</sup> In New York, patients aged sixty-five years and older who sustained medical injury had one-fifth the odds of suing to recover, compared with younger patients.<sup>39</sup> In Utah and Colorado, older age and Medicare insurance were both risk factors for not claiming in the wake of medical injury due to negligence.<sup>40</sup>

Why are elderly patients so much less likely to sue after sustaining medical injury? To the best of my knowledge, this question has not been studied empirically. However, two explanations seem likely. The first relates to awareness. As noted earlier, elderly patients tend to have more severe and complex illnesses.<sup>41</sup> This can make it difficult for them and their families to figure out that they are victims of negligence: they may come into the hospital sick, leave sicker, and never understand why their condition worsened. Since lawsuits are motivated, in the first instance, by being able to recognize and “name” the occurrence of an error, ignorance is a retardant.<sup>42</sup>

The second explanation relates to the economics of malpractice litigation. All else equal, elderly patients will be less attractive plaintiffs to personal injury attorneys because their claims are worth less.<sup>43</sup> Their economic damages are generally lower than for injuries of comparable severity among younger patients, because retirees have few if any lost wages and out-of-pocket health care expenses tend to be relatively low thanks to Medicare.<sup>44</sup>

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38. Studdert, *supra* note 22.

39. Helen R. Burstin et al., *Do the Poor Sue More?: A Case-Control Study of Malpractice Claims and Socioeconomic Status*, 270 JAMA 1697, 1699 (1993), available at <https://jamanetwork.com/journals/jama/article-abstract/408778>.

40. David M. Studdert et al., *Negligent Care and Malpractice Claiming Behavior in Utah and Colorado*, 38 MED. CARE 250, 256–57 (2000), available at <https://www.jstor.org/stable/3767189> [hereinafter *Negligent Care and Malpractice*].

41. Brennan et al., *supra* note 21, at 373.

42. William L.F. Felstiner et al., *The Emergence and Transformation of Disputes: Naming, Blaming, Claiming . . .*, 15 L. & SOC'Y REV. 631 (1980–81), available at [https://www-jstor-org.proxy2.library.illinois.edu/stable/pdf/3053505.pdf?ab\\_segments=0%252Fbasic\\_SYC-4946%252Fcontrol&refreqid=excelsior%3Af94e8094f799cbe6bb03ff3419b8c9cd](https://www-jstor-org.proxy2.library.illinois.edu/stable/pdf/3053505.pdf?ab_segments=0%252Fbasic_SYC-4946%252Fcontrol&refreqid=excelsior%3Af94e8094f799cbe6bb03ff3419b8c9cd).

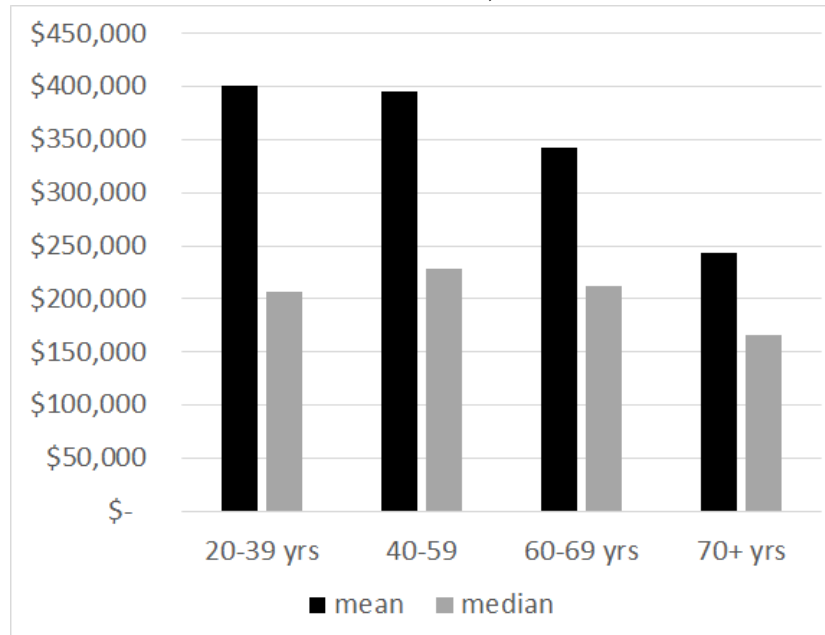
43. See *Negligent Care and Malpractice*, *supra* note 40, at 257–58.

44. The low out-of-pocket costs among the elderly, on average, compared to the non-elderly has long been a staple assumption. It is interesting to speculate whether this may be changing—or, more specifically, whether the size of the difference may be narrowing—in the wake of dramatic increases in the coverage among the non-elderly following enactment of the Patient Protection and Affordable Care Act.

### VIII. Appropriateness of Compensation

Among elderly patients injured by medical care who do bring claims and go on to recover damages, are they compensated appropriately? This is a challenging question to answer because there are no clear benchmarks in tort litigation for what qualifies as “appropriate” compensation. Nonetheless, we can make some tentative inroads into answering this question.

FIGURE 4: MEAN AND MEDIAN INDEMNITY PAYMENTS AMONG PAID MALPRACTICE CLAIMS, 2004-2018



Data Source: National Practitioner Data Bank Public Use File. Payment amounts are adjusted for inflation and expressed in 2018 dollars.

It is well-documented that elderly plaintiffs who win claims average less in compensation than younger plaintiffs. Figure 4, which shows mean and median payment levels by age group, confirms this for malpractice claimants over the last fifteen years. However, comparisons of this kind are relatively uninformative because they do not account for differences in the mix of injuries within each age group. For example, one difference we noted earlier that should affect recovery

amounts is the disproportionately severe injuries litigated by elderly claimants.

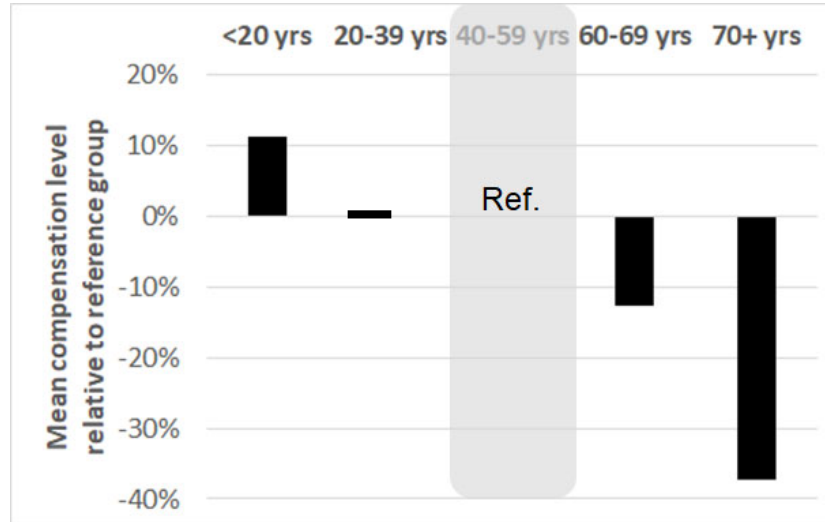
The most informative analysis of compensation appropriateness, or adequacy, would adjust for as many as possible of the differences between older and younger claimants that affect valuation of their losses.<sup>45</sup>

Figure 5 reports results of an analysis comparing mean payments across age groups, after adjusting for injury severity, sex, type of claim, year, and state. The way to read the figure is to treat the middle group—forty to fifty-nine-year-olds—as a reference point. The bars for each age group on either side of the reference group indicate how far their mean payment levels diverge from what you would expect if patients in those groups had payment levels that tracked those for patients in the reference group. In other words, the figure plots “residual” variation in awards by age group after removing variation due to several relevant variables available in the NPDB.

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45. See generally Frank A. Sloan & Chee Ruey Hsieh, *Viability in Medical Malpractice Payments: Is the Compensation Fair?*, 24 L. & SOC'Y REV. 997, 1025–28 (1990).

FIGURE 5. ADJUSTED DEVIATIONS IN MEAN COMPENSATION LEVELS BY AGE GROUP AMONG PAID CLAIMS, 2004-18



Data Source: National Practitioner Data Bank Public Use File. Estimates come from linear regression models that regress log indemnity payments on plaintiff, age, group, sex, and severity of alleged injury.

This approach gets us closer to a reasonable head-to-head comparison of compensation levels across age groups. It indicates that patients aged sixty to sixty-nine years receive payments that are 13% lower, on average, than plaintiffs aged forty to fifty-nine years, and patients aged seventy years or older receive payments that are 37% lower. These results are plausible and provocative, but the picture is incomplete.

There are still a variety of legitimate reasons why the elderly plaintiffs may receive less compensation than their younger counterparts, even for injuries of similar severity. The absence of wage loss for many elderly plaintiffs was mentioned earlier. More generally, future economic losses, typically an important component of damages in cases that involve permanent injuries, are calculated according to work life expectancies and life expectancies, and by definition, these intervals decrease with age.

Damages for non-economic losses—sometimes called pain and suffering—raise more controversial questions. Unlike economic



damages, there is no axiomatic reason why noneconomic damages should be lower for older plaintiffs than younger ones, holding injury severity constant. Is there a temporal multiplier on those losses? Should there be?<sup>46</sup> Many courts accept the idea that there is.<sup>47</sup> And they allow counsel to make so-called per diem arguments to the jury with respect to non-economic loss.<sup>48</sup>

To return to the gap evident in Figure 5 between expected payment levels for elderly and non-elderly claimants, it may be explained by true underlying differences in losses among these claimants. But the gap remains very large after controlling for severity of injury, especially for plaintiffs aged seventy and older, raising the possibility that at least some of it may be attributable to the under compensation of elderly litigants.

## IX. Tort Reform

Dozens of studies—and a spate over the last decade—have examined the impact of tort reform measures on medical malpractice litigation and health care.<sup>49</sup> Table 2 summarizes the most commonly-studied reforms, and the outcomes to which the studies have probed connections. A network of crisscrossing lines between these two columns is a useful construct for conceptualizing the nature of the research. Overviewing the results of this literature goes beyond the scope of this lecture and previous work has covered that terrain.<sup>50</sup> But it is worth asking a specific question: is there empirical evidence that any of these reforms have had *differential* impacts on the elderly?

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46. Natalie Carvalho et al., *Feasibility of a Health-Utility Approach to Quantifying Noneconomic Losses from Personal Injury*, 15 J. EMPIR. LEG. STUD. 2, 278 (2018).

47. John Campbell et al., *Time Is Money: An Empirical Assessment of Non-Economic Damages Arguments*, 95 WASH. U. L. REV. 1, 4 (2017), available at [https://openscholarship.wustl.edu/cgi/viewcontent.cgi?article=6264&context=law\\_lawreview](https://openscholarship.wustl.edu/cgi/viewcontent.cgi?article=6264&context=law_lawreview) (classifying jurisdictions according to whether they allow or prohibit per diem arguments).

48. *Id.*

49. Michelle M. Mello & Allen Kachalia, *Medical Malpractice: Evidence on Reform Alternatives and Claims Involving Elderly Patients*, MEDPAC 1 (2016), [http://www.medpac.gov/docs/default-source/reports/dec16\\_medicalmalpractice\\_medpac\\_contractor.pdf](http://www.medpac.gov/docs/default-source/reports/dec16_medicalmalpractice_medpac_contractor.pdf) [hereinafter Mello & Kachalia].

50. *Id.*

TABLE 2. REFORMS AND OUTCOMES ADDRESSED IN EMPIRICAL RESEARCH ON EFFECTS OF TORT REFORMS

Reforms	Outcomes
<ul style="list-style-type: none"> <li>• Damages caps</li> <li>• Pre-trial screening panels</li> <li>• Certificates of merit requirements</li> <li>• Attorney fee limits</li> <li>• Joint and several liability reform</li> <li>• Collateral-source rule reform</li> <li>• Periodic payment</li> <li>• Statutes of limitations/repose</li> </ul>	<ul style="list-style-type: none"> <li>• Claims frequency and costs</li> <li>• Patient compensation</li> <li>• Overhead costs</li> <li>• Providers' liability costs</li> <li>• Healthcare spending and defensive medicine</li> <li>• Physician supply / access to care</li> <li>• Quality of care</li> <li>• Unintended consequences</li> </ul>

There is conflicting evidence on whether the most important and extensively-studied tort reform—caps on damages—disproportionately burdens the elderly.<sup>51</sup> It has long been theorized caps do, owing to the fact that most apply only to the noneconomic component of damages, which tends to constitute a larger proportion of tort payments to the elderly.<sup>52</sup>

Two studies of jury verdicts in California, both conducted in 2004, did not detect evidence of such a disproportionate effect.<sup>53</sup> More recently, several studies have extended beyond jury verdicts to consider broader samples of claims; these studies have produced mixed results. Hyman and Paik examined effects of the \$250,000 cap on noneconomic damages enacted in Texas in 2003 and found that elderly plaintiffs averaged larger payment reductions under the cap than did nonelderly plaintiffs.<sup>54</sup> Paik and colleagues also found that the cap exacerbated the problem of underclaiming among the elderly.<sup>55</sup> However, a third study of the Texas cap found that the “young

51. *Id.* at 2.

52. *Id.* at 38.

53. David M. Studdert et al., *Are Damages Caps Regressive? A Study of Malpractice Jury Verdicts in California*, 23 HEALTH AFFAIRS 54 (2004); Nicholas M. Pace et al., *Cap-ping Non-Economic Awards in Medical Malpractice Trials: California Jury Verdicts Under MICRA*, RAND INST. FOR CIVIL JUSTICE, 47–48 (2004), [https://www.rand.org/content/dam/rand/pubs/monographs/2004/RAND\\_MG234.pdf](https://www.rand.org/content/dam/rand/pubs/monographs/2004/RAND_MG234.pdf).

54. David A. Hyman et al., *Estimating the Effect of Damages Caps in Medical Malpractice Cases: Evidence from Texas*, 1 J. LEGAL ANALYSIS 355 (2009), <https://watermark.silverchair.com>; Paik et al., *supra* note 1.

55. Paik et al, *supra* note 1, at 597.

elderly”—defined as sixty- to sixty-nine-year-olds—experienced a smaller reduction than younger plaintiffs in some age groups.<sup>56</sup>

Research into the differential impacts of other types of tort reform is extremely limited. An exhaustive 2016 review of the evidence found that, despite the lack of empirical evidence, there were theoretical reasons to anticipate disproportionately large effects on the elderly for two other types of reforms: attorney fee limits and collateral-source rule reform.<sup>57</sup> In both cases, the composition of the awards—lower expected damages in the case of attorney fee limits, and medical expenses constituting a relatively large proportion of awards in the case of collateral-source rule reform—motivate the disparate impact hypothesis. For other leading types of reform, such as pre-trial screening panels, certificate of merit, joint-and-several liability reform, shortening of statutes of limitations, or repose, the review found neither empirical nor theoretical reasons to expect differential effects.<sup>58</sup>

## X. Conclusion

I started with the proposition that examining the dynamics of medical malpractice litigation for particular subgroups of patients—as opposed to the usual approach of treating patients/claimants monolithically—may be valuable. That this has virtually never been done for the elderly, the most prevalent users of our health care system, is both surprising and regrettable. So, what do we know?

First, elderly patients appear to claim for compensation or medical injury much less often than similarly situated younger patients do. Second, when the elderly do file claims, it tends to be for more severe injuries. Third, it is unclear whether elderly patients who obtain compensation are compensated appropriately for their injuries, but lower payment amounts that cannot be explained by injury severity certainly raise concerns about under-compensation. Finally, there is some evidence that damages caps have disproportionately adverse

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56. See generally Andrew I. Friedson & Thomas J. Kniesner, *Losers and Losers: Some Demographics of Medical Malpractice Tort Reforms*, 45 J. RISK AND UNCERTAINTY 115, Tables 5 & 6 (2012) available at [https://www-jstor-org.proxy2.library.illinois.edu/stable/pdf/43550153.pdf?ab\\_segments=0%252Fbasic\\_SYC-4946%252Fcontrol&refreqid=excelsior%3Acc5dd23bc0617c25ac1efd7f3b7a0c60](https://www-jstor-org.proxy2.library.illinois.edu/stable/pdf/43550153.pdf?ab_segments=0%252Fbasic_SYC-4946%252Fcontrol&refreqid=excelsior%3Acc5dd23bc0617c25ac1efd7f3b7a0c60).

57. Mello & Kachalia, *supra* note 49, at 32–61.

58. Mello & Kachalia, *supra* note 49, at 2, 101.

effects on the elderly, but insufficient evidence to make conclusions about differential effects of other tort reforms.

To grasp why we should care about these disparities, it is useful to recall the core functions of the tort system: deterring dangerous conduct and compensating victims of negligence. In health care, deterrence takes the form of incentives to deliver safer care.

To the extent there is underclaiming and/or under compensation in relation to a particular class of plaintiffs, deterrence theory tells us that we should be concerned because providers may not have strong enough precautionary incentives when treating members of that group.<sup>59</sup> Given the prominence of the elderly as health care consumers, we might also worry that such underinvestment in safety may have spill-over effects for all patients.<sup>60</sup> The deterrence concerns have theoretical force. In practice, however, the weight of evidence suggests that liability signals have little or no impact on quality of care.<sup>61</sup> For that reason, I am less inclined to worry about “deterrence lost.”

Compromised access to fair compensation, on the other hand, is a more serious concern. The evidence reviewed here helps us to locate this concern in the phenomenon of underclaiming. Elderly patients who are injured by care face special challenges in moving malpractice claims forward. In a system where claims almost never progress without the stewardship of attorneys who are paid on a contingency fee basis, the relatively low value of elderly patients’ claims is a real and substantial barrier.

One response to the under compensation concern is that low value claims shouldn’t be the tort system’s priority; high value claims should be, so the concern is not weighty. That response is misguided on several counts. “Low value” is a descriptor of the monetary worth of the claim; it does not mean the injury at issue in the claims is of low severity in physical and emotional terms, as the analyses above show. Relatedly, concluding that low value claims are not a policy priority is a bit like concluding that public health policies should not prioritize influenza as a disease on the basis that it is a fairly mild disease for most who experience it. An outbreak of influenza constitutes a public health

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59. Michael Frakes & Anupam B. Jena, *Does Medical Malpractice Law Improve Health Care Quality?*, 143 J. PUB. ECON. 142–58 (2016).

60. *Id.*

61. Michelle M. Mello et al., *Malpractice Liability and Health Care Quality*, 4 JAMA 323 (2019).

priority because of its potential to adversely affect so many people, and some very severely; the burden of uncompensated injuries due to negligence among the elderly takes on a different hue when viewed through this kind of lens.<sup>62</sup>

By removing barriers to compensation, some innovative reforms, such as communication and resolution programs, have potential to ameliorate the access issues. Evaluations of such reforms should pay careful attention to how well they serve demographic subgroups of injured patients, like the elderly, who are particularly vulnerable to missing out on the protection and remediation the tort system is supposed to offer.

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62. The influenza analogy may also be apt because its impact among the elderly can be especially acute and sometimes fatal.

