

Policy Research Perspectives

Medical Liability Claim Frequency Among U.S. Physicians

By José R. Guardado, PhD

Introduction

Medical liability claims impose costs on society—monetary and non-monetary—so examining their prevalence is important. Using new data from the American Medical Association’s (AMA) 2016-2022 Physician Practice Benchmark Surveys, this paper presents estimates of claim frequency for all physicians and explores whether the likelihood of claims varies by age, gender, specialty, Census Division and employment status.

The AMA's Benchmark Surveys offer a unique opportunity to shed light on physicians' risk of liability. Most previous studies measure claim frequency using data from the National Practitioner Databank (NPDB).¹ However, the NPDB excludes claims where no indemnity payment was made. Considering the vast majority of claims (72 percent) do not involve indemnity payments,² the NPDB thus misses a significant number of claims. Another study does include unpaid claims, but its data are from a single liability insurer and thus may not be nationally representative.³ The Benchmark Surveys are nationally representative and include reporting of any claims—paid and unpaid.

As a preview, we find that the likelihood of claims filed against physicians over a short period is relatively low. Unsurprisingly, however, the risk of getting sued over a longer period of time is higher. Thirty-one percent of physicians have been sued at some point in their careers. We also find that claim frequency varies by certain factors, particularly specialty, gender and age. Men are at higher risk than women physicians, and general surgeons and obstetricians/gynecologists (OB/GYN) are the physicians most likely to be sued.

Data and Methods

The AMA's Benchmark Surveys are nationally representative surveys of physicians who provide at least 20 hours of patient care per week, have completed their residency, are not employed by the federal government, and practice in one of the 50 U.S. states or the District of Columbia (Kane and Gillis 2018). We include data for 2016, 2018, 2020 and 2022. In each year, 3500 physicians

¹ See Schaffer, Jena, Seabury, Singh, Chalasani and Kachalia (2017); Studdert, Bismark, Mello, Singh and Spittal (2016); Paik, Black and Hyman (2013).

² Medical Professional Liability Association. 2019. *Data Sharing Project MPL Closed Claims 2016-2018 Snapshot* and author's calculations using data from that report.

³ Jena, Seabury, Lakdawalla and Chandra (2011).

completed the survey for a total of 14,000 observations.⁴ We rely on three questions on claim frequency: *i*) whether any claims have been filed against the physician during their career, *ii*) the number of claims filed against the physician during their career and *iii*) the number of claims filed in the twelve months prior to the survey.⁵ We use the terms “lawsuits” and “claims” interchangeably. We may also refer to “sued in careers to date” as “ever sued,” or to “number of claims in career to date” as “number of claims ever.”

Getting sued is not necessarily indicative of medical error. Consider that 65 percent of claims that closed between 2016 and 2018 were dropped, dismissed or withdrawn, and out of the 6 percent of claims that were decided by a trial verdict, 89 percent were won by the defendant.⁶ This paper’s focus is not on whether physicians make medical errors, but rather simply on whether they faced liability claims.

The analysis begins with a presentation of population estimates of claim frequency. We report descriptive statistics measuring the extent of claims against all physicians as well as by age, gender, specialty, Census Division and employment status. The analysis also provides a first glimpse at whether there is any variation in claim incidence by those different categories.

Although such population estimates are useful in their own right, we complement them with analyses that estimate the correlation between a specific characteristic (e.g., gender) and claim incidence while controlling for other important factors (e.g., specialty) to assess whether any differences persist. While the descriptive analysis looks at the correlations between claim frequency and individual characteristics separately, this more systematic regression analysis looks at all those correlations simultaneously.

Results

Proportions of physicians who have been sued

Exhibit 1 reports the proportions of physicians who were sued in the previous year, who have faced claims during their careers to date, and the average number of claims ever per 100 physicians. Looking at physicians as a whole, relatively few physicians are sued in a one-year period. After being similar in 2016 and 2018 (around 2.4 percent), the fraction of physicians who were sued in the previous year fell slightly to 2.1 percent in 2020 and 1.8 percent in 2022. The changes over time, however, are not statistically significant.

In contrast to the relatively low short-term risk of liability, the longer-term risk is much higher. This is not surprising given that the longer physicians are in practice, the higher is their exposure to risk. In 2022, 31.2 percent of physicians reported that they had been sued in their careers to date. This is slightly lower than it was 2016, when 34.0 percent of physicians had ever been sued. Finally, 61

⁴ All population estimates presented here are weighted to account for the probability of selection into the sample, to adjust for non-resolution of eligibility, non-response, and differences between respondents and the population. The regression estimates are unweighted. The response rates ranged from 31 percent to 38 percent.

⁵ About 7 percent to 10 percent of the 3500 observations in each year resulted in missing responses (“don’t know” or “prefer not to answer”) to the liability questions and were excluded from the analysis.

⁶ Medical Professional Liability Association. 2019. *Data Sharing Project MPL Closed Claims 2016-2018 Snapshot* and author’s calculations using data from that report.

claims had ever been filed per 100 physicians in 2022, which is slightly lower than it was in 2016, when there had been 68 claims per 100 physicians. Two other studies also measured claim frequency in the longer term.⁷ It appears that longer-term risk has fallen over time.

Differences in claim frequency by age and gender are presented in Exhibit 2. Two years of data (2020-2022) are combined to increase sample size, and two time periods (2016-2018 and 2020-2022) are examined for the "sued last year" outcome to examine recent changes in short term liability risk. On average, physicians over the age of 54 were no more or less likely than those 40-54 (reference group) to face claims in the previous 12-month period. However, the fraction of physicians under 40 who were sued recently was a bit lower.

Interestingly, physicians over 54 experienced a reduction in short-term claim frequency in the 2020-2022 period. While it is not evident what would explain this reduction, one possibility is the impact of the COVID-19 pandemic. It is known that the pandemic dramatically reduced utilization of health care services (Gillis 2021). It is plausible that older physicians' labor supply fell in the wake of the pandemic and that this lower exposure reduced their risk of getting sued. A separate analysis (not shown) provides some evidence for this. The average number of hours of patient care of physicians age 55+ fell by more than did the hours of those ages 40-54.

Longer-term risk of getting sued increases with age. This is not surprising given that physicians with more years in practice have had more exposure to risk. Whereas 9.5 percent of physicians under 40 have been sued, almost half of physicians over 54 have been. Eleven claims per 100 physicians have ever been filed against those under 40, compared to 100 claims for those over 54.

There is also wide risk variation by gender. Women were less likely to have been sued in the prior year than men. Notably, this gender differential grew over time. In the 2016-2018 period, 2.8 percent of men were sued in the previous year, compared to 1.6 percent of women. There was no change over time for men in 2020-2022, but the likelihood that women received a claim fell to 0.9 percent.

As with older physicians, women physicians' labor supply may have fallen by more than men's during the pandemic and this lower exposure may have reduced their risk of getting sued. Consistent with this, a separate analysis (not shown) finds the average number of hours of patient care fell more for women than for men in the wake of the pandemic.

Turning to longer-term claim frequency, 36.8 percent of male physicians have been sued in their careers to date, compared to 23.8 percent of women. On average, women have fewer claims (42 per 100 physicians) than male physicians (75 per 100). In short, in both the short and longer terms, women physicians face lower liability risk than men. As will be seen below, such gender risk differentials get smaller with adjustment for other factors.

The widest variation in claim frequency comes from physician specialty (Exhibit 3).⁸ In general across the three outcomes, surgical specialties are generally at highest risk, and internal medicine

⁷ Gonzalez found that in 1996, 41.9 percent of physicians had at least one claim during their careers, while Kane (2010) found a similar proportion (42.2 percent) about a decade later.

⁸ Previous studies also find wide risk variation by specialty (Schaffer et al 2017; Studdert et al. 2016; Jena et al. 2011).

subspecialties are at lowest risk. The risk of being sued in a one-year period is highest among general surgeons. Close to 8 percent of general surgeons were sued in the previous year.

Turning to low risk, note that there are a few specialties in which no physicians were sued in a one-year period. Interpretation of these estimates warrants some context. First, 2020-2022 may not be a typical period given the sharp reduction in health care services and thus lower risk exposure due to the pandemic. Notably, three of the specialties in which no physicians were sued recently had statistically significant reductions in those shares in 2020-2022. In the prior period (2016-2018, not shown), those shares were slightly higher than zero, ranging from 0.9 percent (pediatrics) to 2.9 percent (dermatologists). Second, of the specialties in which no physicians were sued in a one-year period, only the estimate for pediatricians was statistically different than that for general internists (the reference group). Third, given the overall reduction in risk among all physicians over time, it is not surprising that specialty-specific risk is lower as well. This study finds that in 2022, 1.8 percent of all physicians were sued in the previous year. In contrast, Gonzalez (1998) found that 7.7 percent of physicians incurred liability claims in 1996.

Finally, although the risk of being sued in a one-year period may be low for these specialties, that risk increases over time. For example, although none of the physicians in allergy & immunology in the sample were sued recently, 7.1 percent were nonetheless sued during their careers to date. Those physicians are the least likely to have ever been sued, followed by hematologists & oncologists (8.0 percent) and physicians in endocrinology & diabetes specialties (8.6 percent).

At the other end of the risk distribution, OB/GYNs, general surgeons, other surgeons, and orthopedic surgeons are at highest risk, with 62.4 percent, 59.3 percent, 55.5 percent and 47.2 percent, respectively, of those physicians having ever faced a claim. OB/GYNs have faced an average of 152 claims per 100 physicians, while general surgeons have had the most (193). Among the surgical subspecialties, the risk of ever being sued ranges from 13.1 percent of dermatologists to 62.4 percent of OB/GYNs.

Exhibit 4 reports proportions of physicians who have been sued during their careers by both age and specialty. Because of small sample sizes, two age groups (under 40 and 40-54) were combined into one (under 55), and a few specialties were combined with their respective "other" specialties.⁹ These estimates show the *average* claim rates across each *entire* age group, and should not be interpreted as indicating that for a given specialty, the claim rate for a given age (e.g., 55 year old physician) is that much higher than for a 54 year old. The analysis shows that on average before they turn 55, almost half of OB/GYNs and general surgeons have ever been sued, and of those over 54, more than three quarters have been. Even older family/general practitioners have a high incidence of claims, with 50.9 percent getting sued during their careers on average.

Exhibit 5 presents the results by Census Division and employment status. Compared to West North Central (the reference group), only physicians in the Middle Atlantic Division are at higher risk in

⁹ Specialties are shown if the N is at least 30 in one of the years (2020 or 2022) in both age categories. Specialties that do not meet this criterion are grouped under the respective "other" category for internal medicine and surgery and under "Other specialties" in the case of Pathology.

2020-2022. Interestingly, the Middle Atlantic has been at high risk for a long time. It was the highest risk division in 1986 and the third riskiest in 1996 (Gonzalez 1998). Finally, whereas the rankings of physicians ever sued and the average number of claims are similar, the ranking of being sued recently is different. Part of this difference may be due to the pandemic. The ranking of being sued recently in a prior period (2016-2018, not shown) is a bit more similar to that of longer-term risk in 2020-2022.

Finally, employed physicians have a lower claim frequency than owners. In the 2020-2022 period, 1.7 percent of employees were sued in the previous year, and 28.7 percent of employees had ever been sued, compared to 2.3 percent and 35.4 percent of owners, respectively. However, the regression analysis below reveals that other factors entirely explain these differentials.

Regression analysis of claim frequency

The analysis in the previous section found that the chance of getting sued varies by gender, specialty, age and ownership status. However, those differences may be partly driven by the relationships among those specific characteristics themselves. For example, while men are more likely to be sued than women, we also know that male physicians tend to be older and thus have had longer exposure to claim risk and they tend to practice in riskier specialties. In this section, we look at the correlation between claim frequency and each specific characteristic, while adjusting for other important factors simultaneously. To illustrate, the regression analysis assesses whether women are still less likely to be sued than men *even after controlling* for their age and specialty.

Regression results of the probability of being sued in the previous year, of facing a career-to-date claim, and the average number of claims ever faced per physician are presented in columns 1-3 of Exhibit 6, respectively. The estimates can be interpreted as follows. Those in columns 1 and 2 reflect percentage point differences between a characteristic and the reference group for that characteristic. For column 3, they indicate the *number* of claims above or below the reference group's. Negative numbers indicate claim frequency is lower and positive ones that frequency is higher, compared to the *reference group* in each category. For example, male physicians and physicians ages 40-54 are the reference groups in the gender and age categories, respectively, so the comparisons in claim frequency are to those groups.

The results reveal wide variation in longer-term claim frequency, particularly by age, gender, and specialty. In contrast, there is less variation in the likelihood of having been sued recently. The results on age generally corroborate the findings from the simple analysis above. As would be expected, there is still no strong, consistent relationship between age and short-term risk. The likelihood of being sued in the previous year is not different for physicians ages 40-54 (the reference group) and those over 54. However, although the difference in means (Exhibit 2) shrinks when controlling for observable factors, physicians under 40 are still a 0.9 percentage point less likely to have been sued recently. Part of this difference is explained by gender, specialty and hours of patient care. Younger physicians are more likely to be women, who are generally in lower risk specialties. Nonetheless, it is not clear why younger physicians would still face lower short-term risk.

Consistent with age capturing the effect of exposure to risk, age is still positively correlated with claim frequency over physicians' careers. Compared to physicians ages 40-54, physicians under 40

are 15.6 percentage points less likely and those over 54 are 21.9 percentage points more likely to have ever been sued.

Women physicians are still less likely to face claims than their male counterparts (the reference group). However, the gender differentials, especially those for longer-term risk, shrink substantially once we control for other factors. Separate analyses (not presented) show that in terms of being sued recently, a physician's specialty, hours of care and to a lesser extent age explain a significant portion of the differential. In terms of longer-term risk, just controlling for age lowers the gender differential by 35 percent. Once all factors are controlled for, Exhibit 6 shows that women are nonetheless a 1.0 percentage point less likely to have been sued recently and 7.2 percentage points less likely to have ever been sued than male physicians. In comparison, the unadjusted analysis in Exhibit 2 showed that in the 2016-2018 period, women were a 1.2 percentage point less likely to be sued recently, and in 2020-2022 they were 13.0 percentage points less likely to have ever been sued than their male counterparts.

In general, the results by specialty from the regression analysis are not substantially different than those from the descriptive analysis above, particularly those that were statistically significant. Among the strongest and most consistent results across the three measures of claim frequency are that OB/GYNs, general surgeons, orthopedic surgeons and other surgeons have a much higher incidence of claims.

General surgeons, other surgeons, OB/GYNs, orthopedic surgeons, radiologists and emergency medicine physicians are the specialties whose physicians are significantly more likely to have been sued recently than general internists (the reference group).

OB/GYNs and general surgeons are 33.6 and 28.6 percentage points more likely to have ever been sued and have had just above 1 more claim per physician than general internists. Otolaryngologists and urologists are also more likely to have been sued in the longer term, but they are not statistically significantly more likely to have been sued in the last 12 months.

Turning to lower risk, the strongest and most consistent results across the three claim frequency outcomes are for allergy & immunology, endocrinology & diabetes, hematology & oncology, nephrology, and pediatrics. Other specialties also have a lower claim frequency, but not all estimates are statistically significant.

In contrast to the results from the unadjusted analysis showing employees have a lower incidence of claims than owners (the reference group), the regression analysis yields some opposing evidence. First, there are no longer any differences by employment status in the risk of getting sued recently. Second, employees are not different from owners in the risk of ever being sued. In contrast, however, independent contractors, are slightly *more* likely than owners to have ever been sued. Interestingly, both employees and independent contractors have more claims than owners—0.06 and 0.14 per physician—adjusting for other factors.

To shed light on this last finding, first consider the unadjusted finding that employees had *lower* claim frequency than owners (Exhibit 5). Separate analyses reveal that is driven by age and gender, given that owners tend to be older and are more likely to be men. In fact, just controlling for age,

employees are *no longer at lower* risk. Notably, the regression findings that employees and independent contractors have *more* claims than owners are driven by a few outliers with a high number of claims. Excluding just a few of them from the analysis makes the estimates smaller and less statistically significant.

Finally, because the regressions control for state, they could not also adjust for Census Division so there are no Division-level results to present. In separate regressions (not shown), we control for Division but not for state in order to compare with the unadjusted results in Exhibit 5. Recall those results showed Middle Atlantic was the only Division that was different (higher risk) than the reference group—West North Central. In contrast, the regressions reveal a bit more variation for longer term risk. Middle Atlantic is still the only division at higher risk across all three measures of claim frequency. In addition, East North Central is also at higher risk and South Atlantic is at lower risk of physicians ever being sued and on number of claims ever, though no different in whether physicians were sued recently.

Conclusion

The risk of being sued over a short period of time among all physicians is generally low. In 2022, 1.8 percent of physicians reported they had been sued in the previous year. This is down from 2.4 percent in 2018 and 2.1 percent in 2020. This reduction in the probability of being sued recently may be at least partially explained by lower exposure to risk due to a decrease in the utilization of services provided during the COVID-19 pandemic. A look at previous literature suggests such risk has also fallen over a longer period of time. Jena et al. (2011) found that 7.4 percent of physicians faced a claim annually between 1991 and 2003. Gonzalez (1998) found that 7.7 percent of physicians incurred liability claims in 1996. Kane (2010) found that 5.1 percent of physicians faced a claim in the year prior to the 2007-08 period, and Schaffer et al.'s (2017) findings suggest 3.2 percent of physicians per year faced a claim in the 2009-2014 period.¹⁰

In contrast and not surprisingly, a much higher proportion of physicians are at risk of getting sued over the longer term. It seems to be just a matter of time, or more specifically, of longer exposure before a physician is sued. In 2022, 31.2 percent of physicians had been sued during their careers to date.

The risk of getting sued varies widely by certain factors, especially over the longer term. In both the short and longer term, the widest variation in liability risk comes from specialty. Among the strongest and most consistent results is that OB/GYNs, general surgeons, orthopedic surgeons and other surgeons have a much higher incidence of claims.

Of OB/GYNs, 62.4 percent have been sued in their careers, followed by 59.3 percent of general surgeons. Controlling for other factors, OB/GYNs and general surgeons are 33.6 and 28.6 percentage points more likely than general internists to have ever been sued.

¹⁰ Schaffer et al. (2017) found that 0.89 percent of physicians per year faced a *paid* claim in the 2009-2014 period. Given that 28 percent of claims are paid, a back-of-the-envelope calculation suggests this translates to 3.2 percent of physicians per year.

There is also wide variation in liability risk by gender in both the short and longer terms. Twenty four percent of women physicians have been sued in their careers compared to 36.8 percent of their male counterparts. There are a number of reasons why women are less likely to be sued. In terms of short-term risk, they tend to practice in less risky specialties and provide fewer hours of patient care. As for longer-term risk, just controlling for age alone reduces the differential by 35 percent. Although such gender risk differentials get smaller with adjustment for these and other factors, they nonetheless remain, as women have a 7.2 percentage point lower risk than men of ever being sued.

Finally, there is a strong positive correlation between longer-term claim frequency and age. Physicians under the age of 40 are 15.6 percentage points less likely and those over 54 are 21.9 percentage points more likely to have ever been sued than their age 40-54 counterparts. These differences are almost identical when controlling for other factors. This age-risk relationship is not surprising given that older physicians have been practicing for a longer period of time and thus have had more exposure to risk.

There are plausible reasons why some physicians have higher claim frequency than others, such as some specialties being inherently riskier, and more years in practice translating into longer exposure to risk. However, questions remain, such as why women physicians are at lower risk than men, even after controlling for the other observable factors.

The findings in this paper complement previous literature by shedding light on the extent of liability risk faced by physicians. More research is needed to better understand the correlations found here and whether any of them can be given a causal interpretation.

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Exhibit 1. Medical liability claim frequency among all physicians

	2016	2018	2020	2022
	(1)	(2)	(3)	(4)
Sued in Previous Year	2.3%	2.4%	2.1%	1.8%
Sued in Career to Date	34.0%	32.8%	33.1%	31.2% ^b
# of Claims in Career to Date per 100 Physicians	68	72	66 ⁺	61 ^b
Observations	3147	3208	3165	3176

Notes:

1. Sources: Author's analysis of AMA's 2016-2022 Physician Practice Benchmark Surveys.
2. Significance tests were conducted relative to 2016 as well as to the previous year. ^b is $0.05 \leq p < 0.10$ relative to 2016. ⁺ is $0.05 \leq p < 0.10$ relative to previous year.
3. The Ns shown are for "sued in previous year." Ns for the other two outcomes differ a bit due to missing observations.

Exhibit 2. Medical liability claim frequency by age and gender

Proportion of Physicians:

Variable	Sued in Previous Year		Sued in Career to Date	Number of Claims in Career to Date per 100 Physicians
	2016-2018	2020-2022	2020-2022	2020-2022
	(1)	(2)	(3)	(4)
All Physicians	2.4%	2.0%	32.1%	63
Under Age 40	1.1% ^a	1.2% ^b	9.5% ^a	11 ^a
Age 40-54	2.6%	2.4%	23.8%	41
Age 55 and over	2.7%	1.8% ^{**}	46.8% ^a	100 ^a
Men	2.8%	2.6%	36.8%	75
Women	1.6% ^a	0.9% ^{a**}	23.8% ^a	42 ^a
Observations	6355	6341	6448	6326

Notes:

1. Sources: Author's analysis of AMA's 2016-2022 Benchmark Surveys. The results are based on combined 2016 and 2018 data (column 1) and combined 2020 and 2022 data (columns 2-4).
2. For each of the three outcomes in columns 1-4, significance tests are between groups, and for columns 1 and 2, tests are also over time. The between group tests are relative to the age 40-54 category and relative to men. For the between group tests: ^a is $p < 0.01$, ^b is $0.01 \leq p < 0.05$, ^c is $0.05 \leq p < 0.10$. For the over-time tests: ^{***} is $p < 0.01$, ^{**} is $0.01 \leq p < 0.05$, ^{*} is $0.05 \leq p < 0.10$.

Exhibit 3. Medical liability claim frequency by physician specialty: 2020-2022

Proportion of Physicians:

Specialty	Sued in	Sued in	# of Claims	N
	Previous Year (%)	Career to Date (%)	in Career to Date per 100 Physicians	
	(1)	(2)	(3)	(4)
All Physicians	2.0	32.1	63	6341
Anesthesiology	1.2	28.6	45	386
Emergency medicine	3.3 ^b	46.8 ^a	96 ^a	362
Internal medicine subspecialties	1.3	24.5	39	1026
Allergy & immunology	0.0	7.1 ^a	9 ^b	68
Cardiology	0.6	32.1	47	182
Endocrinology & diabetes	0.0	8.6 ^a	14 ^a	96
Gastroenterology	3.0	27.0	42	118
Hematology & Oncology	0.0	8.0 ^a	16 ^a	70
Nephrology	0.0	18.3 ^b	24 ^b	91
Neurology	2.0	22.6 ^b	34 ^c	139
Rheumatology	1.9	22.2	31	51
Other internal medicine subspecialties	2.2	33.6	60	216
Pathology	2.3	11.0 ^a	14 ^a	73
Primary care	0.8	28.6	48	2197
General internal medicine	1.5	30.9	54	737
Family or general practice	0.7	32.0	54	952
Pediatrics	0.0 ^b	17.8 ^a	24 ^a	508
Psychiatry	0.0	10.9 ^a	13 ^a	345
Radiology	4.2 ^a	40.2 ^a	66	254
Surgery	3.7	48.9	125	1386
Dermatology	0.0	13.1 ^a	20 ^b	123
General surgery	7.9 ^a	59.3 ^a	193 ^a	211
Obstetrics/Gynecology	3.2 ^c	62.4 ^a	152 ^a	359
Ophthalmology	3.1	29.6	64	193
Orthopedic surgery	2.3	47.2 ^a	111 ^a	179
Otolaryngology	0.9	39.3	65	88
Urology	5.3 ^b	38.3	82 ^c	80
Other surgical subspecialties	4.1 ^a	55.5 ^a	155 ^a	153
Other specialties	3.4 ^b	20.1 ^a	41 ^c	307
Observations	6341	6448	6326	

Notes:

1. Sources: Author's analysis of AMA's 2016-2022 Benchmark Surveys. The results are based on combined 2020 and 2022 data.
2. For each of the three outcomes in columns 1-3, significance tests are shown relative to general internal medicine. ^a is $p < 0.01$, ^b is $0.01 \leq p < 0.05$, ^c is $0.05 \leq p < 0.10$. In regard to the broad specialties (internal medicine subspecialties, primary care, surgery), the tests were conducted only on the detailed specialties.
3. The Ns in column 4 pertain to the "sued in previous year" outcome. Ns for the other two outcomes differ a bit due to missing observations.

**Exhibit 4. Proportion of physicians sued in career to date
by age and specialty: 2020-2022**

Specialty	Under Age 55 (%)	Age 55+ (%)
	(1)	(2)
All Physicians	19.4	46.8
Anesthesiology	16.3	41.5
Emergency medicine	35.7 ^a	67.8 ^a
Internal medicine subspecialties	12.2	39.1
Cardiology	17.3	49.7
Neurology	7.8 ^c	38.0
Other internal medicine subspecialties	11.5 ^c	36.6
Primary care	13.2	43.0
General internal medicine	16.6	42.3
Family or general practice	12.8	50.9 ^b
Pediatrics	9.1 ^b	27.7 ^a
Psychiatry	7.7 ^a	14.0 ^a
Radiology	30.8 ^a	52.1 ^c
Surgery	32.9	66.3
General surgery	43.9 ^a	75.6 ^a
Obstetrics/Gynecology	47.2 ^a	76.2 ^a
Ophthalmology	13.0	48.6
Orthopedic surgery	30.0 ^a	66.7 ^a
Other surgical subspecialties	25.8 ^a	58.1 ^a
Other specialties	12.8	34.2
Observations	3743	2705

Notes:

1. Sources: Author's analysis of AMA's 2020-2022 Benchmark Surveys. The results are based on combined 2020 and 2022 data.
2. For each age category, significance tests are shown relative to general internal medicine. ^a is $p < 0.01$, ^b is $0.01 \leq p < 0.05$, ^c is $0.05 \leq p < 0.10$. In regard to the broad specialties (internal medicine subspecialties, primary care and surgery), the significance tests were conducted only on the detailed specialties.
3. Some of the specialties shown in Exhibit 3 are not presented in this Exhibit because their sample sizes got small when breaking out by age. Specialties are shown if the N is at least 30 in one of the years (2020 or 2022) in both age categories. Specialties that do not meet this criterion are grouped under the respective "other" category for internal medicine and surgery and under "Other specialties" in the case of Pathology.

Exhibit 5. Claim frequency by Census Division and employment status: 2020-2022

Proportion of Physicians:

Variable	Sued in Previous Year (1)	Sued in Career to Date (2)	Number of Claims in Career to Date per 100 Physicians (3)
All Physicians	2.0%	32.1%	63
Census Division			
New England	2.7%	29.4%	53
Middle Atlantic	3.8% ^b	39.0% ^a	86 ^a
East North Central	1.5%	35.6%	70
West North Central	2.0%	31.0%	60
South Atlantic	1.6%	29.9%	52
East South Central	0.7%	30.9%	65
West South Central	1.7%	31.2%	71
Mountain	0.7%	29.0%	53
Pacific	1.9%	28.8%	54
Employment status			
Owner	2.3%	35.4%	71
Employee	1.7% ^c	28.7% ^a	55 ^a
Independent contractor	1.8%	36.2%	73
Observations	6341	6448	6326

Notes:

1. Sources: Author's analysis of AMA's 2020-2022 Benchmark Surveys. The results are based on combined 2020 and 2022 data.
2. For each of the three outcomes in columns 1-3, significance tests are between groups. The tests are relative to the West North Central Division and relative to owner. ^a is $p < 0.01$, ^b is $0.01 \leq p < 0.05$, ^c is $0.05 \leq p < 0.10$.
3. States in each Division are: New England (CT, ME, MA, NH, RI, VT), Middle Atlantic (NJ, NY, PA), East North Central (IN, IL, MI, OH, WI), West North Central (IA, KS, MN, MO, NE, ND, SD), South Atlantic (DE, DC, FL, GA, MD, NC, SC, VA, WV), East South Central (AL, KY, MS, TN), West South Central (AR, LA, OK, TX), Mountain (AZ, CO, ID, NM, MT, UT, NV, WY), Pacific (AK, CA, HI, OR, WA).

Exhibit 6. Correlates of medical liability claim frequency: 2016-2022

Independent Variable	Sued in Previous Year	Sued in Career to Date	Number of Claims in Career to Date per Physician
Demographics	(1)	(2)	(3)
Under age 40	-0.009*** (0.003)	-0.156*** (0.008)	-0.320*** (0.019)
Age 55 and over	-0.003 (0.003)	0.219*** (0.009)	0.622*** (0.026)
Female	-0.010*** (0.003)	-0.072*** (0.008)	-0.192*** (0.021)
Specialty			
Anesthesiology	-0.005 (0.005)	0.000 (0.019)	-0.034 (0.044)
Emergency medicine	0.019** (0.008)	0.206*** (0.021)	0.493*** (0.056)
Pathology	0.015 (0.016)	-0.127*** (0.031)	-0.253*** (0.061)
Psychiatry	-0.007 (0.005)	-0.167*** (0.017)	-0.348*** (0.041)
Radiology	0.023** (0.010)	0.120*** (0.024)	0.242*** (0.061)
Other specialties	0.006 (0.007)	-0.015 (0.020)	0.031 (0.062)
<i>Internal medicine subspecialties</i>			
Allergy & immunology	-0.014*** (0.004)	-0.204*** (0.023)	-0.421*** (0.049)
Cardiology	-0.001 (0.008)	0.024 (0.026)	-0.028 (0.059)
Endocrinology & diabetes	-0.020*** (0.004)	-0.136*** (0.027)	-0.333*** (0.051)
Gastroenterology	0.010 (0.012)	-0.042 (0.029)	-0.077 (0.072)
Hematology & oncology	-0.017*** (0.004)	-0.145*** (0.030)	-0.276*** (0.065)
Nephrology	-0.021*** (0.004)	-0.092*** (0.028)	-0.212*** (0.057)
Neurology	0.005 (0.009)	-0.028 (0.027)	-0.148** (0.057)
Rheumatology	-0.010 (0.008)	-0.078** (0.033)	-0.200*** (0.066)
Other internal medicine subspecialties	0.009 (0.009)	0.064*** (0.024)	0.127** (0.062)
<i>Primary care</i>			
Family or general practice	-0.003 (0.004)	0.019 (0.015)	0.026 (0.040)
Pediatrics	-0.011** (0.004)	-0.096*** (0.016)	-0.246*** (0.037)
<i>Surgery</i>			
Dermatology	0.003 (0.008)	-0.121*** (0.021)	-0.212*** (0.049)

General surgery	0.059*** (0.014)	0.286*** (0.026)	1.296*** (0.126)
Obstetrics/Gynecology	0.032*** (0.009)	0.336*** (0.020)	1.068*** (0.072)
Ophthalmology	0.007 (0.009)	-0.016 (0.024)	0.002 (0.062)
Orthopedic Surgery	0.027** (0.012)	0.217*** (0.027)	0.885*** (0.117)
Otolaryngology	-0.003 (0.009)	0.149*** (0.033)	0.315*** (0.086)
Urology	0.018 (0.015)	0.078** (0.033)	0.413*** (0.134)
Other surgical subspecialties	0.039*** (0.015)	0.225*** (0.030)	0.941*** (0.159)
Employment status			
Employee	-0.004 (0.003)	0.004 (0.008)	0.056** (0.024)
Independent contractor	-0.002 (0.006)	0.035** (0.017)	0.136*** (0.050)
Year=2018	0.002 (0.004)	-0.015 (0.010)	0.026 (0.032)
Year=2020	-0.002 (0.004)	-0.028*** (0.011)	-0.079*** (0.030)
Year=2022	-0.003 (0.004)	-0.033*** (0.010)	-0.096*** (0.029)
Observations	12,696	12,924	12,668

Notes:

1. Estimates from a linear regression of the dependent variable in columns 1-3 on the independent variables in the leftmost column and state fixed effects. The "sued in previous year" regression additionally controls for weekly hours of patient care.
2. The unit of observation is a physician-year. The reference groups for each category are physicians age 40-54, in internal medicine, owners, and 2016. *** $p < 0.01$, ** $0.01 \leq p < 0.05$, * $0.05 \leq p < 0.10$. Standard errors are in parentheses and are robust.