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BRIEFING BOOK

MEDICAL MALPRACTICE: BY THE NUMBERS

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PART 1: MEDICAL MALPRACTICE LITIGATION

❖ FEW INJURED PATIENTS FILE CLAIMS OR LAWSUITS AND CASES FILED ARE NOT FRIVOLOUS, YET IT IS STILL DIFFICULT FOR MOST PEOPLE TO WIN CASES.

"CSP STAT Civil: Trial Court Caseload Overview, Data Table – Malpractice Medical," "CSP STAT Civil: Trial Court Caseload Overview, Data Table – Total Civil" and "CSP STAT Civil: Trial Court Caseload Overview, Data Table – Total Tort," National Center for State Courts, 2024.

According to calculations of the most recent data released by NCSC:

- Medical malpractice cases represented a tiny percentage of state trial court *civil* caseloads in 2023, ranging from 0.02 to 0.5 percent.[1] This range is consistent with NCSC data from the previous eleven years.[2]

- Medical malpractice cases accounted for a low percentage of state trial court *tort* caseloads in 2023, ranging from 0.66 to 7.85 percent (with the exception of two outliers at 10.6 percent and 12.4 percent).[3] This range is consistent with NCSC data from the previous eleven years.[4]

The Rising Price of Risk Management: Medscape Physicians and Malpractice Report 2024, Medscape, 2024.

According to a survey of over 1,020 doctors across 29+ specialties conducted from May 1 to June 11, 2024, "in 57% of the most serious malpractice cases, the result was favorable thanks to a dismissal or a verdict. Only 1 in 50 doctors said the lawsuit was decided for the plaintiff."[5]

Medical Liability Claim Frequency Among U.S. Physicians, American Medical Association, 2023.

Between 2016 and 2018, "out of the 6 percent of [medical malpractice] claims that were decided by trial verdict, 89 percent were won by the defendant."[6]

"Medical Malpractice in Image-Guided Procedures: An Analysis of 184 Cases," University of Michigan Health System Interventional Radiology-Integrated Resident Casey S. Branach et al., 2019.

Doctors prevailed in 81.9 percent of medical malpractice cases alleging injury from image-guided procedures. According to researchers, "This figure is in accordance with previous

results finding that verdicts favor the physician in approximately 80 to 90 percent of cases that proceed to jury verdict."[7]

"How Liability Insurers Protect Patients and Improve Safety," University of Pennsylvania Law School Professor Tom Baker and University of Texas at Austin Law School Professor Charles Silver, 2018.

"[P]atients must sue to obtain recoveries and, to sue successfully, they must hire attorneys. Because malpractice cases are expensive to prepare and are defended zealously by insurers, plaintiffs' attorneys choose cases with care."[8]

"Measuring Diagnostic Errors in Primary Care," Johns Hopkins University School of Medicine Surgery Associate Professor Martin A. Makary and Neurology Associate Professor David E. Newman-Toker, 2013.

"Only about 1% of adverse events due to medical negligence result in a claim."[9]

American Tort Reform Association General Counsel Victor Schwartz, 2011.

"It is 'rare or unusual' for a plaintiff lawyer to bring a frivolous malpractice suit because they are too expensive to bring."[10]

❖ MEDICAL MALPRACTICE CASES ARE NOT CLOGGING THE COURTS; JURIES RESOLVE FEW CASES.

"CSP STAT Civil: Trial Court Caseload Overview, Data Table – Malpractice Medical, Dispositions," "CSP STAT Civil: Trial Court Caseload Overview, Data Table – Malpractice Medical, Jury Trial Rate" and "CSP STAT Civil: Trial Court Caseload Overview, Data Table – Malpractice Medical, Jury Trials," National Center for State Courts, 2024.

Juries resolved a low percentage of state *medical malpractice* cases in 2023, with rates ranging from 1.48 to 6.49 percent (with the exception of three outliers at 8.33 percent, 9.89 percent and 27.65 percent).[11] This rate has remained low for the twelve years for which data are available (*i.e.*, 2012-2023).[12]

The Rising Price of Risk Management: Medscape Physicians and Malpractice Report 2024, Medscape, 2024.

- "'98% of malpractice cases are resolved before trial,'" Erika L. Amarante, chair of the Defense Research Institute's medical liability panel, told *Medscape*. "So, she believes

most of the physicians who reported a verdict in our survey are clustered in states that have not undergone tort reform and capped general damages."[13]

❖ THE NUMBER ("FREQUENCY") AND SIZE ("SEVERITY") OF MEDICAL MALPRACTICE CLAIMS, LAWSUITS AND PAYOUTS ARE LOW; HIGH VERDICTS ARE ALMOST ALWAYS SLASHED.

Medical Malpractice Litigation: How It Works, Why Tort Reform Hasn't Helped, Northwestern University Pritzker Law School and Kellogg School of Management Professor Bernard S. Black et al., 2021.

Six top medical malpractice researchers examined data about jury verdicts and insurance payouts and found the following,[14]

- Industry campaigns focused on jury verdicts are disingenuous, "based on an incomplete and potentially misleading factual foundation."

- There is a "large gap" between what juries award and what insurers actually pay, which is far less.

    - Seventy-four percent of patients receive less than what a jury awards whether the wrongdoer is a physician, hospital or nursing home.

    - On average, juries award about twice as much as an injured patient ultimately receives, and the larger the verdict, the relatively less the injured patient receives.

    - When verdicts are more than $2.5 million, 95 percent of patients receive less than that – on average 55 percent less.

    - If a verdict exceeds $10 million, the patient receives on average 65 percent less than the verdict.

- While health care providers carry medical malpractice insurance, it is often minimal and insufficient to cover the harm they cause.

    - In Texas, while there is a "widely held belief that policies with $1 million per occurrence limits are standard," the authors found that between 1986–2003, "the median nominal policy limit was $500,000. Only 34 percent of the policies had nominal limits of $1 million.… By contrast, 33 percent had nominal limits of $200,000 or less."

    - The researchers found that "this standard size has not changed, to our knowledge, since at least the 1980s, even though nominal prices have more than doubled since then. This suggests that real policy limits are likely dropping in other states too."

- Injured patients collect, on average, only 15 percent of verdicts that exceed a provider's policy limit.

- While cases involving newborns who are catastrophically injured may result in higher jury verdicts, "perinatal physicians carry less insurance than other physicians and have reduced their insurance coverage over time." That means these babies can be severely undercompensated for the lifetime of care they will require.

"On the Cusp of the Next Medical Malpractice Insurance Crisis," University of Missouri Law School Professor Emeritus Philip G. Peters, Jr., 2021.

- "The number of paid claims each year against physicians and other health care practitioners declined steadily from 2001 to 2016 and has remained steady since then. The best data come from the National Practitioner Data Base," which show that the number of paid claims against all individual health care providers shrunk "from 19,772 paid claims in 1991 to 11,538 in 2019 – a drop of 42 percent." (Note that some of this reduction may be due to physician migration into larger hospital systems. Claims may be settled by hospitals and not by individuals.[15])

- For physicians, "the drop has been even sharper, falling 47 percent between 2001 and 2019. Setting aside the low 2020 number as a pandemic aberration, the 2019 numbers are the lowest recorded since NPDB began collecting statistics in 1991, amounting to 61 percent of the number of paid claims in that year."[16]

A Call for Action: Insights from a Decade of Malpractice Claims, Coverys, 2020.

- Closed claims data from 2010-19 show that "general claims trends from the past decade remained mostly stagnant. Between 2010 and 2019, the overall closed-with-indemnity-payment rate was essentially flat, averaging slightly more than 23%."[17]

- "[C]laims frequency has trended downward to an average of 4.4 percent."[18]

Medical Malpractice in America: *A 10-Year Assessment with Insights*, CRICO Strategies, 2019.

- "Overall MPL case frequency dropped 27% from 2007-2016, with an especially compelling trend for obstetricians-gynecologists."

- "Fewer cases are being asserted relative to the physician population. The 2016 rate, 3.7 cases per 100 physicians, reflects a steady downward trend."

- "For ob/gyns (whose rate is historically higher than the average for all MDs), the risk of having an MPL case filed against them dropped 44% from 2007–2016."

- On average, from 2007-2016, 70 percent of cases closed without payment.[19]

"Five Myths of Medical Malpractice," University of Illinois Law Professor David A. Hyman and University of Texas Law Professor Charles Silver, 2013.

- "[T]he outlandish jury verdicts that attract popular attention are not at all representative and often are slashed dramatically by judicial oversight or through other means. More broadly, the overwhelming majority (> 95%) of cases are resolved, and the overwhelming majority of payouts are made as a result of voluntary settlement."

- "Blockbuster verdicts dominate the press, but their coverage reflects their rarity. Reporters are interested in big verdicts for the same reason they are interested in airplane crashes: Both are unusual."

- "We found that the larger the verdict, the more likely and larger the haircut because policy limits serve as a functional cap on patients' recoveries. Stated differently, the portion of a jury award that exceeds the available insurance coverage is rarely collectible. Other studies have documented similar haircuts with large verdicts."[20]

❖ COMPENSATION IS FOR SERIOUS INJURIES OR DEATH.

See also, PART 5: PATIENT SAFETY.

Hidden In Plain Sight: Exposing the Drivers of Diagnostic Error, Coverys, 2024.

- A review of closed claims data from 2019-2023 found that "52% of diagnosis-related events in the ED resulted in death (36%) or a high-severity injury (16%). Events involving death accounted for 51% of the indemnity paid." According to Coverys, "It is important to note that our data is consistent with national data."[21]

"How Claims History Can Assist Risk Management," Coverys, November 21, 2023.

"Between 2018 and 2022, Coverys opened an average of 2,797 claims per year. …Nearly half (43%) of all claims were for incidents that resulted in death or high injury severity. This includes major permanent injuries, the need for lifelong care, or a fatal prognosis. These claims accounted for 66% of paid indemnity."[22]

Candello Discover Clinical Events Database Benchmarking Report: *Medical Hospitalists 2012-2020*, CRICO, 2022.

High-severity injuries and death accounted for over 74 percent of all claims against medical hospitalists from 2012-2020, with deaths accounting for more than 53 percent of events.[23]

A Call for Action: Insights from a Decade of Malpractice Claims, Coverys, 2020.

Closed claims data from 2010-19 show the following:[24]

- "High-severity injuries and death accounted for 33% of all claims during the 10-year period, with little variation from year to year."

- "Deaths accounted for 23.8% of events and 37.5% of indemnity paid."

- "Death and high-severity injury constitute 52% of [diagnostic error] events and 74% of indemnity paid. High-severity injury and death allegations are mostly attributable to missed or delayed cancer diagnoses."

Medical Malpractice in America: *A 10-Year Assessment with Insights*, CRICO Strategies, 2019.

- "Although occasional case results seem random or arbitrary, the primary determinant of financial damages in MPL cases is injury severity. High-severity injury cases closed more often with an indemnity payment, and those payments were, on average, four times higher than for medium and low severity cases."

- "High-severity injuries are more likely to result in indemnity payment. The increasing cost of long term life-care plans are reflected in the average indemnity for patients with severe, but non-fatal outcomes of care."

- "Over the 10-year study period, nearly two-thirds of obstetrics-related cases and 63% of those alleging a diagnostic error involved high-severity injuries."

- "Indemnity was impacted most by injury severity and patient age. Death-related cases accounted for the largest amount of total indemnity, but severely-injured patients under age 40 received the highest average payment."[25]

Emergency Department Risks: Through the Lens of Liability Claims, Coverys, 2019.

After analyzing over 1,300 closed medical malpractice claims filed against hospitals between 2014 and 2018 over emergency department care, the insurance provider found that 61 percent of claims involved serious injury, with more than one-third resulting in death.[26]

Maternal/Fetal Risks: Using Claims Analysis to Improve Outcomes, Coverys, 2019.

The insurer's analysis of 472 obstetric-related closed claims across a five-year period (2013-2017) revealed the following:[27]

- 80 percent of cases involved injuries with the "highest clinical severity: significant permanent (e.g., neonatal brachial plexus injury or maternal loss of fertility), major permanent (e.g., neonatal blindness or hearing impairment, maternal organ injury), grave (e.g., neonatal neurological/brain damage, hypoxic ischemic encephalopathy, or cerebral palsy), or death (of mother, baby, or both)."

- 24 percent of cases resulted in death of the baby, mother or both.

- The most common injury to mothers was future infertility (29 percent).

- The most common injury to babies was neurological/brain damage (41 percent), followed by injuries resulting in fetal demise (34 percent).

- The single largest cause of obstetrical claims was "alleged negligence during the management of labor – accounting for 40% of claims and 49% of indemnity paid." Risks included failure to: "Recognize and act on nonreassuring fetal heart tracings"; "Monitor mother/fetus during administration of high-risk medications (e.g., oxytocin and magnesium sulfate)"; and "Recognize and act on obstetric emergencies."

Study of Malpractice Claims Involving Children, The Doctors Company, 2019.

The med mal insurer examined over 1,200 pediatric patient claims filed against doctors that closed from 2008-2017 and found the following:[28]

- "Brain injuries accounted for the highest percentage of claims for all age groups: neonates, 48%; first year, 36%; child, 15%; and teenager, 11%."

- "Children in the first-year category of the claims experienced the highest death rate at 30%." Patient deaths occurred in 15 percent of claims filed for children ages one through nine, 13 percent for neonatal patients and 13 percent for teenage patients.[29]

- 75 percent of neonate closed claims, 65 percent of first year closed claims, 44 percent of ages one through nine closed claims and 32 percent of teenage closed claims were for high-severity injuries.

"How Liability Insurers Protect Patients and Improve Safety," University of Pennsylvania Law School Professor Tom Baker and University of Texas at Austin Law School Professor Charles Silver, 2019.

- "[T]rial verdicts and settlement payments grow in size as injuries become more severe and the strength of the evidence of malpractice increases."

- "[A] 'death discount' exists, meaning that payments tend to be larger when patients sustain grave, permanent injuries than when they die."

- "Juries often send deserving plaintiffs home empty-handed, and severely injured plaintiffs frequently receive smaller payments than they deserve. The more grievous the injury, the more likely and the more serious the problem of under-compensation tends to be."[30]

❖ A SMALL NUMBER OF DOCTORS ARE RESPONSIBLE FOR MOST MALPRACTICE PAYOUTS; INCOMPETENT PHYSICIANS ARE RARELY HELD ACCOUNTABLE BY STATE MEDICAL BOARDS OR THE FEDERAL GOVERNMENT.

Ranking of the Rate of State Medical Boards' Serious Disciplinary Actions, 2021-2023, Public Citizen, 2024.

- "[M]any (if not most) boards are doing a dangerously lax job in enforcing their states' medical practice acts. Low rates of serious disciplinary actions suggest that the boards are not adequately taking actions to discipline physicians responsible for negligent medical care or whose behavior is unacceptably dangerous to patients."

- "[B]y the end of 2023, a total of 9,837 U.S. physicians had five or more malpractice payments reported to the [National Practitioner Data Bank] NPDB since payments began to be reported in 1990. These physicians had malpractice records worse than well over 99% of all physicians who have practiced since 1990. Yet 75% of these 9,837 physicians have never had a medical board licensure action of any kind, either serious or nonserious."[31]

"Medical Board Discipline of Physicians for Spreading Medical Misinformation," University of North Carolina Law School Professor Richard S. Saver, 2024.

- "In this cross-sectional study of 3128 medical board disciplinary proceedings involving physicians, spreading misinformation to the community was the least common reason for medical board discipline (<1% of all identified offenses). Patient-directed misinformation and inappropriate advertising or patient solicitation were tied as the third least common reasons (<1%)…."

- "Extremely low rates of disciplinary activity for misinformation conduct were observed in this study despite increased salience and medical board warnings since the start of the COVID-19 pandemic about the dangers of physicians spreading falsehoods; these findings suggest a serious disconnect between regulatory guidance and enforcement and call into question the suitability of licensure regulation for combatting physician-spread misinformation."[32]

"'An inherent conflict of interest': State medical boards often fail to discipline doctors who hurt their patients," *CBS News*, 2021.

"'It's a very small proportion of physicians that have caused a bulk of the problem,' says Robert Oshel, who spent 15 years at the federal Department of Health and Human Services in Washington where he worked with the National Practitioner Databank, a federal database used by hospitals to keep track of bad outcomes by doctors. Oshel scoured the databank and calculated that 1.8 percent of doctors are responsible for more than half of all malpractice

payouts. Of that small group, 'Only 1 in 7 have had action taken against them by any state.'"[33]

"Worst COVID Liars Still Have Their Licenses," *Medpage Today*, December 28, 2021.

- "Only a handful of physicians have been disciplined for spreading COVID-19 misinformation since *MedPage Today* first reported on this issue [in August 2021] – and none of them were on our original list of the 20 most vocal physicians spreading COVID falsehoods."

- "Just three additional physicians were sanctioned by their state medical boards for actions related to COVID-19 misinformation, even though the Federation of State Medical Boards (FSMB) has issued a stern warning that doctors' licenses could be at risk if they deliberately misinform."

- Some doctors "closely tied to COVID disinformation campaigns…remain free to continue to misinform their patients and the public, even as the Omicron variant surges."

- "Some of the physicians on our list even renewed their license during the last 5 months."[34]

A Call for Action: Insights from a Decade of Malpractice Claims, Coverys, 2020.

Closed claims data from 2010-19 show that "63% of surgical claims involve a surgeon with multiple claims."[35]

"Changes in Practice among Physicians with Malpractice Claims," Stanford University Medicine and Law Professor David M. Studdert et al., 2019.

Researchers examined Medicare and NPDB data on paid claims against 480,894 doctors from 2003-2015 and found the following:[36]

- Roughly 2 percent of physicians accounted for almost 40 percent of all paid medical malpractice claims.

- "[M]ore than 90 percent of doctors who had at least five claims were still in practice."

- The "overwhelming majority of doctors who had five or more paid claims…moved to solo practice and small groups more often, where there's even less oversight, so those problematic doctors may produce even worse outcomes. …This makes sense, in some ways. Doctors with many claims may find it harder to find employment in large groups or in big clinics. Anyone can, however, set up his or her own practice. The general public is much less likely than a potential employer to seek out information about prior lawsuits."

- "'There is an emerging awareness that a small group of 'frequent flyers' accounts for an impressively large share of all malpractice lawsuits,'" said the study's lead author.[37]

❖ SEXUAL ABUSE OF PATIENTS GOES LARGELY UNPUNISHED.

15-Year Summary of Sexual Misconduct by U.S. Physicians Reported to the National Practitioner Data Bank, 2003-2017, Public Citizen, 2020.

NPDB data from January 1, 2003, to December 31, 2017 revealed the following:[38]

- "510 (37.7%) of the physicians with sexual-misconduct–related NPDB reports continued to have active licenses and clinical privileges in the states where they were disciplined, or had malpractice payments due to their sexual-misconduct offenses. Because some physicians may have had active licenses and clinical privileges in states other than the ones in which they were disciplined, an even higher proportion of physicians may have been able to continue practicing medicine because medical boards and health care organizations in these other states may not have taken disciplinary actions against these physicians that resulted in revocation or suspension of their licenses and clinical privileges."

- "Of the 317 physicians with at least one sexual-misconduct–related clinical-privileges or malpractice-payment report, 221 (69.7%) had not been disciplined by any state medical board for such misconduct during our study period. Importantly, 151 (68.3%) of these 221 physicians committed sexual misconduct involving patient victims and 61 (27.6%) committed sexual misconduct involving multiple victims. Physical sexual contact or relations and nonspecific sexual misconduct were the primary reported forms of sexual misconduct perpetrated by 116 (52.5%) and 85 (38.5%) of these 221 physicians, respectively."

"Time to End Physician Sexual Abuse of Patients: Calling the U.S. Medical Community to Action," Public Citizen Health Services Researcher Azza AbuDagga, Health Research Group Director Michael Carome and Research Group Senior Advisor Sidney M. Wolfe, 2019.

"[M]edical boards may not always act on complaints of physician sexual abuse of patients, especially when there is no material evidence or witnesses. A 2006 report found that two-thirds of all complaints received by medical boards were closed either due to inadequate evidence to support the charges or because these cases were resolved informally, through a notice of concern or a similar communication with the involved physician. The report noted that only 1.5% of the overall complaints to medical boards reached the formal hearing stage. "There is evidence that even when medical boards discipline physicians for sexual abuse, those physicians often are permitted to resume medical practice. [M]edical boards did not discipline 70% of the physicians who had peer-review sanctions or malpractice payments made on their behalf due to sexual misconduct."[39]

"State Boards, Regulators Paralyzed on Physician Sex Assaults," *Medpage Today*, February 7, 2019.

- "Often, actions against a physician's license only occur following a criminal conviction related to medical misconduct."

- "State boards can request information on physicians too, but its use has been limited and often ignored during licensing. In 2017, 30 state boards used it fewer than 100 times, while 13 never bothered to check it once, according to numbers from the Health Resources and Service Administration."

- "Inconsistencies across state boards can allow physicians to cross a state border, renew their license, and continue to practice, even after they have had their license revoked. Fifteen states do not share complaints with other medical boards, while 21 denote board actions taken in other states on a physician's profile."[40]

***Crossing the line: Sexual misconduct by nurses reported to the National Practitioner Data Bank*, Public Citizen, 2018.**

- "[S]tate nursing boards and health care organizations are failing to protect patients from nurses who engage in sexual misconduct."

- "Only 882 U.S. registered and licensed practical or vocational nurses have been reported to the National Practitioner Data Bank (NPDB) over nearly 14 years (from 2003 through 2016) because of sexual misconduct, according to the study – the first to analyze this national flagging system for sexual misconduct by nurses. While male nurses account for approximately 10 percent of U.S. nurses, they accounted for 63 percent of the nurses reported to the NPDB due to sexual misconduct."

- "[N]early half of the nurses who engaged in sexual misconduct with patients that led to NPDB malpractice payment reports –16 out of 33 – were not disciplined by state nursing boards for their misconduct, the study found."[41]

"AP Investigation: Doctors keep licenses despite sex abuse," *Associated Press*, April 15, 2018.

- "[A]cross the country, most doctors accused of sexual misconduct avoid a medical license review entirely. A study last year found that two-thirds of doctors who were sanctioned by their employers or paid a settlement as the result of sex misconduct claims never faced medical board discipline."
- "The lenience of penalties for sexually abusive doctors sometimes is a source of frustration even for members of the medical board who administer the discipline…. Sexually abusive physicians are not generally required to apologize or even acknowledge having acted inappropriately in order to keep their license."[42]

"Doctors & Sex Abuse; AJC National Investigation," *Atlanta Journal-Constitution*, 2016.

> "The AJC found numerous examples of hospitals and medical boards failing to report disciplinary actions. What's more, the review found that even when hospitals and medical boards file reports, they may classify violations in a way that conceals the scope of physician sexual misconduct on the very limited portion of the data bank available to the public. Because of such gaps, the AJC – in reviewing board orders, court records and news reports – found about 70 percent more physicians accused of sexual misconduct than the 466 classified as such in the public version of the data bank from 2010 to 2014."[43]

❖ STATE-SPECIFIC FAILURES TO POLICE PHYSICIAN SEXUAL ABUSE ARE SIMILAR.

- Arizona[44]
- California[45]
- Illinois[46]
- New York[47]
- Ohio[48]

❖ MEDICAL MALPRACTICE PAYMENTS ARE NOT ARBITRARY; THEY REVEAL NEGLIGENCE AND FORETELL FUTURE CLAIMS.

See also, PART 5: PATIENT SAFETY.

"Top Contributing Factors to Medical Malpractice Claims Deliver Clarity to Sources of Medical Error," CRICO, February 5, 2024.

> "Using the deep data trove stored in Candello's national database, containing one-third of all MPL claims asserted in the U.S., clinical and financial vulnerabilities and trends become clear. Looking at 27,919 MPL claims asserted between 2018–2023, Candello analytics identifies the top 10 contributing factors across this six-year period:
>
> 1. Possible technical problem when the injury is a known complication of the procedure
> 2. Failure to appreciate and reconcile relevant signs, symptoms, or test results
> 3. Therapy selection or management for surgical or invasive procedures
> 4. Failure or delay in ordering a diagnostic test
> 5. Failure to monitor patient's psychological status (other than medical response)
> 6. Communication error among providers regarding patient's condition
> 7. Non-insured influence
> 8. Communication error between patient/family and provider about expectations
> 9. Failure or delay in obtaining consult or referral

10. Failure to follow policy or protocol

We also found that the top three contributing factors listed above persisted, in the same order, in each year included in the analysis (2018–2023)."[49]

"Paid Medical Malpractice Claims: How Strongly Does the Past Predict the Future?" Northwestern University Law School and Kellogg School of Management Professor Bernard S. Black, Georgetown University Law School Health Law and Policy Professor David A. Hyman and Tehran University Associate Professor Kowsar Yousefi, 2023.

- "Using a novel dataset (which includes detailed data on all licensed physicians and all paid claims in Illinois over a 25-year period), we study whether past paid med mal claims, physician characteristics, and specialty predict future paid med mal claims. After controlling for other factors, physicians with a single prior paid claim have a four-fold higher risk of future claims than physicians with zero prior paid claims. The more prior paid claims a physician has, the higher the likelihood of a future paid claim. Multiple factors (male gender, having an M.D., attending a non-U.S. medical school, practicing in a high-claim-risk specialty, and mid-career status (6-15 prior years of experience) predict a higher likelihood of having one or more paid med mal claims."

- "Physicians often claim that med mal claims are random events, like being struck by lightning. Our findings make it clear that most paid med mal claims are not random. To continue the metaphor, those who are struck once are much more likely to be struck a second time. In addition, certain demographic characteristics are consistently associated with higher (or lower) med mal claim risk. These results are robust to multiple alternative models. Our findings have obvious policy implications for reducing future paid claims and patient harm."[50]

"Association of Past and Future Paid Medical Malpractice Claims," Georgetown University Law School Health Law and Policy Professor David A. Hyman et al., 2023.

- "Physicians with even a single paid medical malpractice claim in a prior period were shown to have a greatly elevated risk of having additional paid claims during a future period. With 5-year prior and future periods, a single paid claim in the prior period was associated with a roughly 4 times higher likelihood of a future-period paid claim, relative to the likelihood for physicians with no prior-period claims. The elevation of risk was similar for both high-risk and lower-risk specialties. The greater the number of prior-period paid claims, the greater the likelihood of having a paid claim over any given future period, as well as the expected number of future-period claims. This pattern was not affected by whether plaintiffs' lawyers had access to information about physicians' past paid claims."

- "Paid claims are an imperfect signal of low-quality care. Still, we offer evidence that even 1 claim provides an important signal, and that multiple claims provide a strong signal."[51]

The Power to Predict, CRICO Strategies, 2020.

- "Our analysis of 37,000 medical professional liability (MPL) claims and suits identified three key characteristics that, when present, most significantly increase the odds that a given MPL case will close with an indemnity payment." More specifically, claims and lawsuit data revealed that failure to establish and follow a policy/protocol, patient assessment issues ("i.e., failure to consider and pursue an alternate diagnosis in relation to a patient's history, symptoms, or test results") and insufficient documentation of clinical findings, rationale and patient consent fuel med mal payments the most.

- "We can all learn patient safety lessons from the narratives of MPL cases, including those closed without an indemnity payment. Cases that do close with a payment – either through settlement or trial – carry the additional data – and gravity – from such outcomes. That cross-section of evidence is an essential tool for health care providers and MPL insurers trying to understand whether a given case is an outlier or a harbinger of future adverse outcomes."[52]

"How Liability Insurers Protect Patients and Improve Safety," University of Pennsylvania Law School Professor Tom Baker and University of Texas at Austin Law School Professor Charles Silver, 2019.

- "[M]alpractice settlements are both good indicators of past negligence and good predictors of future claims. They are good indicators because both the likelihood and the size of payments correlate with the strength of the evidence of medical malpractice. They are good predictors because the number of past settlements correlates with the likelihood that more payments will be made."

- "Settlements can serve as good proxies in these ways because, generally, liability insurers are willing to pay claimants and physicians are willing to consent to settlements only when good evidence of malpractice exists."[53]

"Physicians with Multiple Paid Medical Malpractice Claims: Are They Outliers or Just Unlucky?" Northwestern University Law School and Kellogg School of Management Professor Bernard S. Black, Georgetown University Law Professor David A. Hyman and Northwestern University Law School Post-Doctoral Research Fellow Joshua Lerner, 2019.

After examining NPDB 2006-2015 paid claims data, researchers concluded the following:[54]

- "[P]ast paid med mal claims are strong predictors of future paid claims. There are in fact some outlier physicians, with multiple paid med mal claims who are responsible for a

significant share of paid claims. Indeed, we find that having even *one* prior period paid claim triples the likelihood of a future claim. Once a physician – who otherwise has average state- and specialty-specific risk – has two or more prior claims over a limited time period such as three or five years, the likelihood that this was just bad luck is small. With three prior claims, that chance becomes tiny."

- "Our findings have obvious policy implications. Although many physicians believe that med mal claims are random, we show that there are some outlier physicians who are much more claim-prone than their fellow physicians, and provide rules of thumb for identifying them, relative to a baseline risk level that allows for state-level and specialty-level variation in baseline risk.… The take-home message is simple. When it comes to med mal, past performance predicts future results."

"The Association between Patient Safety Indicators and Medical Malpractice Risk: Evidence from Florida and Texas," Northwestern University Law School and Kellogg School of Management Professor Bernard S. Black, Northwestern University Economic Department Ph.D. Candidate Amy R. Wagner and Bates White Economic Consulting Senior Economist Zenon Zabinski, 2016.

- "We find a strong association between [adverse patient safety] rates and malpractice claim rates with extensive control variables and hospital fixed effects (in Florida) or county fixed effects (in Texas). Our results, if causal, provide evidence that malpractice claims leading to payouts are not random events. Instead, hospitals that improve patient safety can reduce malpractice payouts."

- "We study here the association between rates of adverse patient safety events and rates for paid medical malpractice claims (below, simply "claims" or "malpractice claims"), using data from Florida and Texas, the only states with publicly available data on these claims. In Florida, we find evidence, with hospital fixed effects and extensive covariates, that adverse event rates predict malpractice claim rates. Our point estimates suggest hospitals can meaningfully reduce malpractice claims by investing in patient safety. An improvement from one standard deviation above to one standard deviation below the expected adverse event rate predicts a 32% drop in paid malpractice claims. In Texas, we have only county-level data on malpractice claim rates, but obtain similar point estimates, using county fixed effects."[55]

"Prevalence and Characteristics of Physicians Prone to Malpractice Claims," Stanford University Medicine and Law Professor David M. Studdert et al., 2016.

According to the study, which reviewed National Practitioner Data Bank data consisting of 67,000 paid claims against more than 54,000 physicians from 2005 through 2014:

- "The most important predictor of a claim appeared to be a physician's past claims history. Compared with doctors with one previous paid claim, those with two paid claims

had almost twice the risk of having another. Physicians with three paid claims had three times the risk. Those with six or more had more than 12 times the risk, the study found."

- According to the study's lead author, "The results suggest it may be possible to identify 'claim-prone' physicians and intervene before they encounter additional claims. …'I think a lot of liability insurers and health care organizations have not taken that analytical step to really understand who these folks are,' he said."[56]

❖ "TORT REFORMS" KEEP LEGITIMATE CASES FROM BEING FILED.

"Uncovering the Silent Victims of the American Medical Liability System," Emory University Associate Law Professor Joanna Shepherd, 2014.

After conducting a national survey of attorneys to determine medical malpractice victims' access to the civil justice system, Shepherd found "evidence confirming that many legitimate victims of medical malpractice have no meaningful access to the civil justice system." Among Shepherd's conclusions from the survey results and additional analysis of empirical studies:[57]

- "As a result of the high costs of medical malpractice investigation and litigation, many malpractice victims are left without legal remedy. …Unfortunately, most legislative reforms over the past several decades have only exacerbated the access-to-justice problem. Damage caps and other tort reforms that artificially reduce plaintiffs' damage awards also reduce contingent fee attorneys' expected recoveries. As a result, even fewer cases make economic sense for the attorneys to accept."

- Private-industry claims data show that "95% of medical malpractice victims have extreme difficulty finding legal representation unless their damages are significantly larger than the typical damages for their types of injuries."

- "Data also suggest that the problem of access to justice is worsening; half as many victims with low damage awards recovered in 2010 as they did twenty-five years earlier. The economic realities of the medical liability system are silencing a growing number of victims."

- "Victims who cannot attain legal representation are effectively excluded from the civil justice system. Because of the complexity and expense of medical malpractice lawsuits, employing a lawyer is critical to a successful claim. Thus, without legal representation, most of these victims will not be compensated for the harm they suffer as a result of medical negligence."

❖ PHYSICIANS GREATLY MISPERCEIVE THE RISK AND CONSEQUENCES OF BEING SUED AND ULTIMATELY BELIEVE OUTCOMES ARE FAIR; PERSONAL ASSETS ARE NOT AT RISK.

Is Your Risk of Being Sued Climbing? Physicians and Malpractice Report 2023, *Medscape*, 2023.

A majority – 59 percent – of doctors who were sued "did not believe that their legal case negatively affected their medical career."[58]

Medical Malpractice Litigation: How It Works, Why Tort Reform Hasn't Helped, Northwestern University Pritzker Law School and Kellogg School of Management Professor Bernard S. Black et al., 2021.

Six top medical malpractice researchers examined data about jury verdicts and insurance payouts and found the following:[59]

- Health care providers often carry minimal medical malpractice insurance, likely knowing that if they purchase inadequate insurance and commit malpractice, injured patients are less likely to file a claim against them, there is little risk they will have to cover the difference personally if a jury rules against them, and even if they are on the hook for something, the amount will be "modest in size."

- Plaintiffs' lawyers told the authors that it is so difficult for patients to collect anything exceeding policy limits that lawyers typically cannot afford to take cases when doctors are grossly underinsured, allowing negligent providers to get away with paying nothing and leaving victims with no compensation.

- In only 0.6 percent of cases did physicians make any out-of-pocket payments, and most of these were "relatively small."

- Only 2 percent of damages paid beyond policy limits are covered by defendants, including so-called "deep pocket" institutional defendants like hospitals.

- The authors "asked a number of Texas medical malpractice plaintiffs' lawyers whether and when they try to collect above limits from physicians or other defendants. All agreed that they would not pursue a case against a physician if the physician's policy limits were insufficient to justify bringing the claim. Absent unusual circumstances, they treated policy limits as a hard cap on recovery."

"How Liability Insurers Protect Patients and Improve Safety," University of Pennsylvania Law School Professor Tom Baker and University of Texas at Austin Law School Professor Charles Silver, 2019.

- "[P]ayments rarely exceed primary carriers' policy limits, even when jury verdicts establish that the legal value of plaintiffs' claims is far higher."

- "[W]hen the providers are independently employed physicians, insurers provide all but a minute fraction of the dollars that are paid."

- "Even when injuries are large and the facts strongly indicate that negligence occurred, plaintiffs' attorneys often decline requests for representation when providers carry little or no malpractice coverage."[60]

"Policy Limits, Payouts, and Blood Money: Medical Malpractice Settlements in the Shadow of Insurance," University of Texas Law Professor Charles Silver et al., 2015.

- "[Out-of-pocket payments] OOPPs are rare, they rarely threaten physicians' financial solvency, and they would be even rarer if all physicians bought the $1 million/$3 million policies that the conventional wisdom says they carry."

- "No study has ever shown that malpractice claims threaten doctors in any state with a significant risk of insolvency."

- "Although physicians loudly complain that they are one med mal claim away from bankruptcy, the empirical evidence paints a radically different picture. The risk of an OOPP is small – vanishingly so when a physician buys $1 million in malpractice coverage. Physicians who choose to buy smaller malpractice policies, and thus incur somewhat higher but still tiny OOPP risk, probably have only themselves to blame if they end up having to make an OOPP."[61]

"Five Myths of Medical Malpractice," University of Illinois Law and Medicine Professor David A. Hyman and University of Texas Law Professor Charles Silver, 2013.

"When payments above the policy limits were made, whether in tried or in settled cases, they almost always came from insurers. Out-of-pocket payments by physicians were extraordinarily rare, particularly when physicians had policy limits of ≥ $500,000. One might say, with only the slightest exaggeration, that physicians have effectively no personal exposure on malpractice claims (other than the obvious and unavoidable side effects of litigation, e.g., the emotional and time-related costs of being deposed). Why do plaintiffs' lawyers not pursue personal assets? Years ago, a qualitative study documented a strong social norm among malpractice lawyers against seeking 'blood money' from individual physicians. Our findings buttress that account. The only physicians who should worry about personal exposure are those who grossly underinsure, and even they should not worry too much."[62]

❖ EXPERTS SAY AND DATA SHOW THAT THE MEDICAL MALPRACTICE SYSTEM WORKS; THE CONTINGENCY FEE SYSTEM SCREENS OUT BASELESS LAWSUITS.

"Screening Plaintiffs and Selecting Defendants in Medical Malpractice Litigation: Evidence from Illinois and Indiana," Northwestern University Law School and Kellogg School of Management Professor Bernard S. Black et al., 2018.

After analyzing "comprehensive datasets from Illinois and Indiana, covering every insured med mal claim closed in Illinois during 2000–2010 and in Indiana during 1980–2015" and conducting interviews with med mal plaintiffs' lawyers, researchers concluded the following:[63]

- "Consistent with prior research, plaintiffs' lawyers report turning away many of those seeking representation after a short initial meeting or phone call.… Plaintiffs' lawyers also told us that they will also drop some defendants from a case if investigation indicates that these defendants did nothing wrong or at least that the marginal expected recovery from including them is outweighed by the incremental cost of doing so."

- "Our data suggest, and our interviews confirm, that screening does not stop when a suit is filed. In some instances, postfiling investigation reveals the case is not worth pursuing, and the plaintiffs' lawyer will drop the case."

- "What about the common physician perception that plaintiffs' lawyers often sue every physician with even a remote connection to the patient? In serious cases involving physicians only, physicians + institutions, and institutions only, there are an average of 1.5 defendants per case in Illinois and 1.8 defendants per case in Indiana. For these categories of defendants, only 4 percent of serious Illinois cases and 8 percent of serious Indiana cases have four or more defendants."

Could Mandatory Caps on Medical Malpractice Damages Harm Consumers? California State University, Northridge Economics Professor and Cato Institute Adjunct Scholar Shirley Svorny, 2011.

In an October 2011 study, Professor Svorny analyzed existing empirical data and found that the medical malpractice system works just as it should. As Svorny explained,[64]

- "The medical malpractice system generally awards damages to victims of negligence and fails to reward meritless claims. Plaintiffs' attorneys, paid on a contingency basis, filter out weak cases. Patients who file valid claims are likely to collect, generally through out-of-court settlements."

- "The fact that settlement is common suggests courts are providing good signals as to when plaintiffs will prevail. Under these conditions, insurance companies assess the validity of claims and settle valid claims rather than go to court."

- "Critics of the system point to the fact that many initial claims do not involve negligence. This can be explained by patients and their attorneys seeking to gather information about the level of negligence associated with an injury. Once discovery shows a small likelihood of success, many plaintiffs drop their claims."

- "Critics of the medical malpractice system point to its high administrative costs. …Yet, as economist Patricia Danzon observes, the bulk of administrative costs are limited to the small fraction of cases that go to court. Meanwhile, the deterrent effect influences all medical practice."

❖ THE BEST WAY TO REDUCE MALPRACTICE LITIGATION IS TO REDUCE THE AMOUNT OF MALPRACTICE.

"The Impact of Tort Reform and Quality Improvements on Medical Liability Claims: A Tale of 2 States," Southern Illinois University Medical School Orthopedic Surgery Division Chief Khaled J. Saleh et al., 2015.

A study published in the *American Journal of Medical Quality* linked quality of care improvements with a reduction in medical malpractice claims. Researchers discovered that a "drop in malpractice claims corresponded with an increase in hospitals' quality scores," with the decrease in claims showing a "statistically significant correlation with the increase in quality scores based on 22 Medicare measures...." As one of the report's co-authors explained, "Clearly, the evidence shows that if you do high quality care, it is well received by patients and decreases your medicolegal costs…."[65]

"A comprehensive obstetric patient safety program reduces liability claims and payments," Yale School of Medicine Obstetric, Gynecology and Reproductive Sciences Associate Professor and Chief of Obstetrics Christian M. Pettker et al., 2014.

After comparing the five-year period before their patient safety program was implemented to the five-year period afterward (1998-2002 vs. 2003-2007, respectively), Yale School of Medicine researchers found "a strong association between introduction of a comprehensive obstetric patient safety initiative and a dramatic reduction in liability claims and liability payments."[66] Among their key findings:[67]

- An estimated 95% reduction in direct liability payments and a savings of $48.5 million over a 5-year period.

- A "consistent pattern of statistically significant trends in reduced payments and in the variability of these payments."

- "Furthermore, during this patient safety intervention there was a 53% reduction in liability claims and lawsuits compared with the 5 years prior."

- "The mean number of annual cases consistently dropped over the 10-year period."

Is Better Patient Safety Associated with Less Malpractice Activity? Evidence from California, Rand Institute for Civil Justice, 2010.

- "Our results showed a highly significant correlation between the frequency of adverse events and malpractice claims: On average, a county that shows a decrease of *10 adverse events* in a given year would also see a decrease of *3.7 malpractice claims*. Likewise, a county that shows an increase of 10 adverse events in a given year would also see, on average, an increase of 3.7 malpractice claims."

- "We also found that the correlation held true when we conducted similar analyses for medical specialties – specifically, surgeons, nonsurgical physicians, and obstetrician/gynecologists (OB-GYNs). Nearly two-thirds of the variation in malpractice claiming against surgeons and nonsurgeons can be explained by changes in safety. The association is weaker for OB-GYNs, but still significant."

- "These findings are consistent with the basic hypothesis that iatrogenic harms are a precursor to malpractice claims, such that modifying the frequency of medical injuries has an impact on the volume of litigation that spills out of them." This is "an intuitive relationship," which "suggests that safety interventions that improve patient outcomes have the potential to reduce malpractice claiming, and in turn, malpractice pressure on providers."

- "Presumably, the one thing that all parties to the debate can agree on is that reducing malpractice activity by reducing the number of iatrogenic injuries is a good idea. Arguments about the merits of statutory tort intervention will surely continue in the future, but to the extent that improved safety performance can be shown to have a demonstrable impact on malpractice claims, that offers another focal point for policymakers in seeking to address the malpractice crisis. Based on the results of the current study, we would suggest that that focal point may be more immediately relevant than has previously been recognized."[68]

PART 2: MEDICAL MALPRACTICE, HEALTH CARE COSTS AND "DEFENSIVE MEDICINE"

See also, PART 5: PATIENT SAFETY ("Private Equity Ownership").

❖ "DEFENSIVE MEDICINE" IS A MYTH; STRIPPING AWAY PATIENTS' LEGAL RIGHTS WILL NOT LOWER (AND MAY INCREASE) HEALTH CARE COSTS.

"Perspectives of Emergency Clinicians About Medical Errors Resulting in Patient Harm or Malpractice Litigation," University of Massachusetts Medical School Emergency Medicine Associate Professor Peter B. Smulowitz et al., 2022.

Contradicting prior research connecting heavy ordering of diagnostic exams with fear of malpractice charges – a.k.a. "defensive medicine" – the survey showed that emergency department attending physicians and advanced practice clinicians in acute care hospitals across Massachusetts were more focused on not harming patients than on not getting sued.[69] As one of the researchers told *MedPage Today*,[70]

> "When we look at defensive medicine, a lot of times people are really just focusing on a limited number of variables, and right at the top of the list, everyone thinks that doctors are ordering lots of tests because they're afraid of malpractice. …And we're saying, actually, you can imagine a doctor who is just really afraid of harming people – a lot of doctors are – and they don't care that much about malpractice."

Medical Malpractice Litigation: How It Works, Why Tort Reform Hasn't Helped, Northwestern University Pritzker Law School and Kellogg School of Management Professor Bernard S. Black et al., 2021.

Data analyzed by six top medical malpractice researchers revealed that "tort reform" doesn't reduce "defensive medicine" or health care costs. Instead, it likely increases costs. More specifically,[71]

- The authors "provide strong evidence that tort reform does not reduce Medicare spending" and in fact leads to "modestly higher health care spending, at least for the Medicare population."

- The researchers estimate that "tort reform" results in "a 4 to 5 percent rise in Medicare Part B spending" and a "2 to 3 percent and…sometimes statistically significant" increase in "combined Part A and B spending."

- "The conventional wisdom is that damage caps reduce health care spending by reducing defensive medicine." However, after Texas capped non-economic damages for injured patients in 2003, which was considered "a major shock to Texas medical malpractice risk," tests and procedures ("health care utilization") did not drop and rather increased in some areas.

- "In our view, the accumulation of evidence finding zero or small declines in spending, or even – as we find – a rise in Part B spending, suggests that it is time for policymakers to abandon the hope that tort reform can be a major element in health care cost control." But they call the arguments that "tort reform" reduces health care spending a "politically convenient myth" that, while false, is "hard to kill."

"The Paradoxes of Defensive Medicine," DePaul University Law Professor Emeritus Stephan Landsman and Arizona State University Law Professor Michael J. Saks, 2020.

Extensive review of direct physician surveys, clinical scenario studies and case data analyses led researchers to conclude that there is little support for the notion that the practice of "defensive medicine" pervades the American healthcare system. As the authors explain,[72]

- "[Serious researchers'] consensus belief is that, if defensive medicine exists, whatever its extent, the dollar cost of wasteful procedures attributable to defensive medicine is a thin shadow of what the industry's campaigners argue it is. Consequently, reforms of tort law are unable to make much of a contribution to bringing down America's unusually high healthcare costs."

- "One of the most remarkable facts about defensive medicine is how successful the promotors of the notion have been in persuading legislators and the public of its existence, its seriousness, that it is key to solving the problem of exorbitant healthcare costs, and that the only cure for it worth discussing is to reduce the healthcare industry's accountability. That, despite empirical evidence for the hypothesis which has been found contradictory and uncertain."

- "Proponents of the defensive medicine hypothesis have put forward fantastic numbers, the most extreme of them approaching a trillion dollars annually, on air-thin bases. Even serious and sober studies have found their way to numbers at the high end of where the empirical evidence can take us."

- "One of the most illuminating findings is that tort reforms have little impact on the perceptions of healthcare providers about the legal environment that they inhabit. If providers are insensitive to the specific tort rules under which they practice, if they do not know what the law is in their jurisdiction, then they cannot sensibly adjust their estimation of malpractice risk."

"Defensive Medicine and Obstetrics Practices: Evidence from the Military Health System," Massachusetts Institute of Technology Economics Professor Jonathan Gruber and Duke University Law and Economics Professor Michael Frakes, 2020.

> Researchers examined Military Health System data on over one million births in military families from 2003 to 2013 to determine whether legal liability had any impact on C-section rates in two care options – military hospitals (where doctors have no liability) and private civilian hospitals (where doctors can be held accountable for medical negligence). What they found: "C-sections are about 4 percent more common during the deliveries at military hospitals, compared to the times when mothers in the Military Health System deliver at civilian hospitals."[73]

"Defensive Medicine: A Case and Review of Its Status and Possible Solutions," Banner Estrella Medical Center Chief Medical Officer Eric D. Katz, 2019.

> "A physician's perception of malpractice rarely correlates with the stringency of their state's tort system, overestimates their own risk, and overestimates the cost of defensive practices. While estimates are difficult to make, defensive medicine likely only accounts for 2.8% of total healthcare expenses."[74]

"Damage Caps and Defensive Medicine: Reexamination with Patient Level Data," George Washington University School of Medicine and Health Sciences Associate Professor Stephen Farmer and Assistant Research Professor Ali Moghtaderi and Northwestern University Law School and Kellogg School of Management Professor Bernard S. Black, 2019.

- "An often proposed remedy [to "defensive medicine"] is caps on non-economic damages.... We report evidence, from a careful study with a large, patient level dataset, of a more complex and nuanced response to caps. Rates for cardiac stress tests and other imaging tests appear to rise, instead of falling, and overall as does Medicare Part B lab and radiology spending. Yet cardiac interventions do not rise, and likely fall. There is no evidence of a fall in overall Medicare spending and, consistent with a recent prior paper (Paik et al., 2017), some evidence of higher Part B spending."

- "The heterogeneous effects from damage caps, and lack of evidence for lower overall healthcare spending, suggest that if the policy goal is to limit health-care spending, damage caps are simply the wrong tool. If the goal is to reduce physician incentives to engage in assurance behavior by ordering tests with little or no clinical value, damage caps are too blunt a tool to achieve that goal."

- "[A] core message from our findings is that, writ large, the 'adopt damage caps, reduce spending' story lacks empirical support. Instead, measures to reduce overtreatment will need to be carefully targeted to particular areas of concern."[75]

"Fictions and Facts: Medical Malpractice Litigation, Physician Supply, and Health Care Spending in Texas Before and After HB4," University of Texas at Austin Law School Professor Charles Silver, Northwestern University Law School and Kellogg School of Management Professor Bernard S. Black and Georgetown University Law Professor David A. Hyman, 2019.

> "[A]lthough the damage caps adopted in Texas and other states greatly reduced the volume of malpractice litigation and payouts to patients, neither in Texas nor in other states have damage caps moderated the growth of health care spending…."[76]

"How Do Changes in Medical Malpractice Liability Laws Affect Health Care Spending and the Federal Budget?" Congressional Budget Office, 2019.

- CBO estimates that if Congress imposed an extreme menu of tort restrictions on every state, even those that are unconstitutional, federal health care savings would total a mere $28 billion over 10 years.[77] This is nearly half its prior estimate of $54 billion in total health care savings.[78] Both estimates amount to a tiny 0.5 percent in savings.

- There is no evidence that five of the six extreme tort restrictions examined by CBO[79] have any impact whatsoever on health care spending.[80]

- One of the six tort restrictions – a cap on attorneys' fees, which many states currently have – would have the opposite budgetary impact than proponents suggest. Not only would this provision have no impact on federal health care spending, it would cost the government money.[81]

- CBO accepts the finding of other recent studies showing that imaging and testing actually *increase* after a state enacts a cap.[82]

- Caps on non-economic damages are the only tort restriction that CBO is willing to even consider scoring. However, the effort to try to reach a precise "savings" number is convoluted. In CBO's own words, many of its assumptions are variously described as "fundamentally untestable," "theoretically ambiguous" and "imprecisely estimated."[83]

"The C-Section Epidemic: What's Tort Reform Got to Do with It?" Rutgers Law School Professor Sabrina Safrin, 2018.

- "Although about half the states in the Union have had non-economic damage caps in place for at least eight years, our aggregate data shows that women are just as likely to give birth by cesarean section in states with damage caps as in ones without such caps."

- "This data shows that a woman is not less likely to give birth by cesarean section in a state with damage caps than in one without. Thus, either damage caps are insufficient to address physicians' concerns or other explanations better account for the overuse of the procedure."[84]

"Association of Medical Liability Reform with Clinician Approach to Coronary Artery Disease Management," George Washington University School of Medicine and Health Sciences Associate Professor Stephen Farmer et al., 2018.

> Researchers examined more than 36,600 doctors who evaluated patients for coronary artery disease in nine states that adopted medical malpractice damages caps between 2002 and 2005 and compared them with over 39,100 doctors in 20 states without malpractice caps.[85] Among their chief findings: "Overall testing rates didn't change," and though "the kind of test doctors in new-cap states ordered did change" to less invasive ones, the "researchers do note that nationally, cardiologists were beginning to move away from more intensive procedures after a large study concluded that one of those procedures, cardiac revascularization, should not be done for people whose chronic chest pain is stable. That study and others could have influenced doctors' choices in new-cap states toward the end of their study period, which ended in 2013."[86]

"Damage Caps and Defensive Medicine, Revisited," Northwestern University Law School and Kellogg School of Management Professor Bernard S. Black et al., 2017.

> The authors examined health care spending trends in nine states[87] that enacted caps during the last "hard" insurance market (2002 to 2005), compared these data to other "control" states and found the following:
>
> - "[D]amage caps do not significantly affect Medicare Part A (hospital) spending. However, caps predict 4-5% *higher* Part B [physician] spending."
>
> - "A core policy argument used to support adoption of damage caps, is that caps will reduce defensive medicine and thus reduce healthcare spending. For the third-wave cap adoptions, we find evidence pointing, instead, toward *higher* Medicare Part B spending."
>
> - "There is, at the least, no evidence that caps *reduce* healthcare spending."[88]

"Defensive Medicine in U.S. Spine Neurosurgery," Brigham and Women's Hospital Neurosurgeon Timothy R. Smith et al., 2017.

> After analyzing survey responses from members of the American Board of Neurological Surgeons, researchers concluded that "[s]tate-based medical legal environment is not a significant driver of increased defensive medicine associated with neurosurgical spine procedures."[89]

"Residents' self-report on why they order perceived unnecessary inpatient laboratory tests," University of Pennsylvania Hematology/Oncology Fellow Mina S. Sedrak et al., 2016.

Researchers surveyed internal medicine and general surgery residents at the Hospital of the University of Pennsylvania to learn why they ordered unnecessary tests. Among their findings:[90]

- "Of the 116 respondents, 105 (90.5%) said they ordered daily labs out of habit because that's the way they were trained."

- "Other frequent responses were that tests were ordered because residents weren't aware of the costs (86.2%), discomfort with diagnostic uncertainty (82.8%), and as was the case in the previous paper, concern that the attending would ask for the lab results (75.9%)."

"Should Physicians Be Afraid of Tort Claims? Reviewing the Empirical Evidence," Tilburg University Director of Studies and Associate Law Professor Gijs van Dijck, 2016.

- "[T]he evidence for defensive medicine is weak at best. This applies for both studies using tort reforms as a measure of liability risk and research that uses claims history."

- "The idea that physicians do not or hardly ever practice defensive medicine is consistent with empirical research focusing on psychiatrists, firemen, the police, and financial regulators. Studies in those fields have also shown small or no effects resulting from tortious liability."

- "An interesting observation is that survey research does tend to produce evidence of the practice of defensive medicine. This suggests that defensive medicine merely or predominantly exists in the minds of people. Consequently, the belief physicians have with respect to medical malpractice is not necessarily related to the actual number of claims or the actual malpractice risk. This suggests there may not be a need to call for legal reforms, at least not to tackle defensive medicine issues. Perhaps it would be more meaningful to look into possibilities to change physicians' perceptions about tort liability exposure and its effects."[91]

❖ STUDIES ESTABLISHING "DEFENSIVE MEDICINE" ARE UNRELIABLE.

"The 'NUTS' statistic: Applying an EBM disease model to defensive medicine," SUNY Downstate Health Sciences University Emergency Medicine Physician Robert Allen et al., 2022.

"In regards to defensive medicine, the evidence has unique limitations. These include lack of nationally representative samples (e.g., studies from a single or several insurers), reliance on proprietary data from malpractice insurers and therefore inability to reproduce results, under-reporting of malpractice events to the legally mandated National Practitioner Data Bank, lack

of data specific to emergency medicine physicians, and use of data pulled from non-concurrent years for a single estimation."[92]

"The Paradoxes of Defensive Medicine," DePaul University Law Professor Emeritus Stephan Landsman and Arizona State University Law Professor Michael J. Saks, 2020.

- "Survey respondents are quite capable of answering consequential questions strategically – often in line with their tribe's current norms – rather than offering genuinely candid responses. In the research business, this is known as 'social desirability bias.' People want to look good to those whose opinions matter to them.

  "These are the most obvious methodological weaknesses of self-report surveys. Others include: (1) low response rates, especially by busy professionals; (2) recall biases; (3) heuristic biases; and (4) questions that could not possibly elicit meaningful answers."

- "Overall, '[i]n clinical scenario surveys designed specifically to elicit a defensive response, malpractice concerns were occasionally cited as an important factor in clinical decisions. However, physicians' belief that a course of action is medically indicated was the most important determinant of physicians' clinical choices.' The contrast between the conclusions reached based on direct-ask surveys versus those from clinical scenarios illustrates how powerful an impact research design can have on what a study finds. A wholly different methodological approach is to stop asking doctors what they say they have done or what they say they would do, and to try to look at what they actually do."

- "Inadequately controlled observational studies can result in dramatically erroneous conclusions, as medical researchers know all too well."[93]

❖ "DEFENSIVE MEDICINE" IS MEDICARE FRAUD.

A doctor who bills Medicare or Medicaid for tests and procedures done for a personal purpose – *e.g.*, possible lawsuit protection – as opposed to what is medically necessary for a patient, is committing fraud under federal and state Medicare/Medicaid programs.

- The Medicare law states: "It shall be the obligation of any health care practitioner and any other person…who provides health care services for which payment may be made (in whole or in part) under this Act, to assure, to the extent of his authority that services or items ordered or provided by such practitioner or person to beneficiaries and recipients under this Act…will be provided economically and only when, and to the extent, medically necessary."[94] "[N]o payment may be made under part A or part B for any expenses incurred for items or services…which…are not reasonable and necessary for the diagnosis or treatment of illness or injury or to improve the functioning of a malformed body member."[95]

- Providers cannot be paid and/or participate in the Medicare program unless they comply with these provisions, and they impliedly certify compliance with these provisions when they file claims. Thus, if they are not in compliance, the certifications and the claims are false. Providers who do not comply and/or file false claims can be excluded from the Medicare program.[96]

- Perhaps more importantly, the Medicare claim form (Form 1500) requires providers to expressly certify that "the services shown on the form were medically indicated and necessary for the health of the patient."[97] If the services are, to the doctor's knowledge, not medically necessary, the claim is false.

❖ THE REAL REASONS DOCTORS MAY ORDER TOO MANY TESTS AND PROCEDURES: WORKLOAD AND REVENUE.

Unnecessary Back Surgery: Older Americans put at risk while billions in Medicare funds wasted, Lown Institute, 2024.

> "A total of 3,454 physicians performed a measurable number of low-value back surgeries. Over three years, these physicians received a total of $64 million from device and drug companies for consulting, speaking fees, meals, and travel…."[98]

"How a Lucrative Surgery Took Off Online and Disfigured Patients," *New York Times*, October 30, 2023.

- "Component separation is a technically difficult and risky procedure. Yet more and more surgeons have embraced it since 2006, when the approach – which had long been used in plastic surgery – was adapted for hernias. Over the next 15 years, the number of times that doctors billed Medicare for a hernia component separation increased more than tenfold, to around 8,000 per year. And that figure is a fraction of the actual number, researchers said, because most hernia patients are too young to be covered by Medicare."

- "In interviews with The Times, more than a dozen hernia surgeons pointed to another reason for the surging use of component separations: They earn doctors and hospitals more money. Medicare pays at least $2,450 for a component separation, compared with $345 for a simpler hernia repair. Private insurers, which cover a significant portion of hernia surgeries, typically pay two or three times what Medicare does."[99]

"They Lost Their Legs. Doctors and Health Care Giants Profited." *New York Times*, July 15, 2023.

- There's a "booming cottage industry that peddles risky procedures to millions of Americans – enriching doctors and device companies and sometimes costing patients their limbs."

- "The volume of…vascular procedures has been surging. The use of atherectomies, in particular, has soared – by one measure, more than doubling in the past decade, according to a Times analysis of Medicare payment data." Among the main reasons: "[T]he government changed how it pays doctors for these procedures. In 2008, Medicare created incentives for doctors to perform all sorts of procedures outside of hospitals, part of an effort to curb medical costs. A few years later, it began paying doctors for outpatient atherectomies, transforming the procedure into a surefire moneymaker. Doctors rushed to capitalize on the opportunity by opening their own outpatient clinics, where by 2021 they were billing $10,000 or more per atherectomy."

- "From 2017 to 2021, about half of Medicare's atherectomy payments – $1.4 billion – have gone to 200 high-volume providers, the Times analysis found."

- "The device industry rewards high-volume doctors with lucrative consulting and teaching opportunities. …Many of the doctors who do the most vascular procedures receive payments – for consulting, speeches and other services – from the device industry that profits from their work."[100]

"In the 'Wild West' of Outpatient Vascular Care, Doctors Can Reap Huge Payments as Patients Risk Life and Limb," *ProPublica*, May 24, 2023.

- "Experts fear patients are being caught up in a new era of profit-driven procedure mills, in which doctors can deploy any number of devices in the time it takes to drill a tooth and then bill for the price of a new car."

- "The generous reimbursements have created a conflict of interest for doctors running their own practices, who are supposed to make unbiased medical decisions while also being responsible for a lease, overhead and staff. And unlike hospitals, which have panels and administrators who spot adverse events and questionable billing, these offices don't face such scrutiny."[101]

"Operation Profit: Some surgeons pull in millions by owning medical device companies," *InvestigateTV*, May 23, 2022.

- "Surgeries gone awry. Unnecessary procedures. Extra hardware implanted in patients' bodies. Insurance companies and government insurance over-charged. All potential consequences critics point to when doctors own a stake in the devices they use in surgeries. The set-up is known as a physician-owned distributorship, or POD. In this type of arrangement, a surgeon might own a percentage of a company that distributes devices, such as the metal parts used in spinal fusions. That doctor could then have the hospitals they work at buy the hardware right from the POD – and implant that hardware in their own patients. Critics say that financial motive for installing equipment can cloud judgement and mean unnecessary surgeries for patients. 'You have these egregious doctors that were throwing in hardware just for the sake of making money,' said Dr. Scott Lederhaus, a California neurosurgeon who has spoken out against PODs for years."

- "Some doctors have made extra money by cutting out big device companies and acting as their own middleman to funnel devices into their own operating rooms. One doctor is in prison after multiple complaints of surgical issues and unnecessary operations using products in which he invested.… Lederhaus said doctors may stand to make two to three times more money per surgery by using their own company's devices."[102]

"Why Some Doctors Purposely Misdiagnose Patients," *Atlantic*, August 15, 2019.

There is a "grim world of health-care fraud – specifically, the growing number of doctors who are accused of performing unnecessary procedures, sometimes for their own personal gain."[103] Among the examples cited:

- A pediatric neurologist in Michigan accused by hundreds of patients after "intentionally misreading their EEGs and misdiagnosing them with epilepsy in childhood, all to increase his pay."

- A Kentucky hospital and cardiologist sued by nearly 400 former patients for "needlessly performing heart procedures to 'unjustly enrich themselves.'"

- A Texas rheumatologist accused of "'falsely diagnosing patients with various degenerative diseases including rheumatoid arthritis.'"

- A Kentucky cardiologist "sentenced to 60 months in federal prison for, among other things, implanting medically unnecessary stents in his patients."

PART 3: PHYSICIAN SUPPLY AND ACCESS TO HEALTH CARE

❖ "TORT REFORM" DOES NOT IMPROVE ACCESS TO CARE; PHYSICIAN SHORTAGES RESULT FROM FACTORS HAVING NOTHING TO DO WITH LIABILITY.

See also, PART 5: PATIENT SAFETY ("Stress/Burnout/Depression").

***The Complexities of Physician Supply and Demand: Projections From 2021 to 2036*, Association of American Medical Colleges, 2024.**

- "Physician demand is projected to continue to grow faster than supply under the most likely scenarios, leading to a total projected shortage of between 13,500 and 86,000 physicians by 2036."

- "Looking at supply in comparison to demand within physician categories, by 2036, we project:

    - A shortage of between 20,200 and 40,400 primary care physicians.

    - A shortage of most non-primary care specialties."

- "Demographics – specifically, population growth and aging – continue to be the primary driver of increasing demand from 2021 to 2036. During this period, the U.S. population is projected to grow by 8.4%, from about 331.9 million to 359.7 million. The population aged 65 and older is projected to grow by 34.1% – primarily due to the 54.7% growth in size of the population aged 75 and older. This trend portends high growth in demand for physician specialties that predominantly care for older Americans."

- "A large portion of the physician workforce is nearing the traditional retirement age of 65. Physicians aged 65 or older were 17% of the active workforce in 2021, and those between age 55 and 64 made up another 25% of the active workforce. Therefore, it is very likely that more than a third of currently active physicians will retire within the next decade."[104]

"The physician shortage isn't going anywhere," McKinsey & Company, 2024.

According to the 2024 physician survey, top factors influencing U.S. physicians' decision to leave their current role were as follows: retirement, a "desire for higher remuneration," "family needs/competing life demands," "demanding nature, emotional toll, and physical toll of work," "whether they are involved in decision making and whether they have sufficient staffing support."[105]

"Physician burnout still a major factor even as unexpected turnover eases," Medical Group Management Association, 2024.

- "A Sept. 3, 2024, [Medical Group Management Association] *Stat* poll found that 27% of medical groups report having a physician leave or retire early in 2024 due to burnout…."

- "The sources of physician burnout cited by practice leaders in this week's poll frequently included specific challenges that many medical groups have endured in recent years," namely, "**Increasing administrative burdens," "Flat reimbursement rates and collection challenges amid higher expenses," "Busier schedules," "Picking up the pieces"** (*i.e.*, "taking on more patients after other physicians left practice in recent years") and **"Tech troubles."**[106]

2023 New York Residency Training Outcomes: A Summary of Responses to the 2023 New York Resident Exit Survey, Center for Health Workforce Studies, SUNY Albany School of Public Health, 2024.

- When respondents (*i.e.*, newly trained physicians) "who had plans to leave New York were asked about the main reason for leaving, the most common reasons reported were proximity to family (34%), better salary offered outside New York (15%), and cost of living in New York (9%)."[107] These reasons are consistent with previous annual surveys.[108]

- Zero percent of respondents cited the category "cost of malpractice insurance" as the principal reason for practicing outside New York State.[109] And as in previous years, New York's liability laws or legal environment were not even listed.[110]

"The physician shortage crisis is here – and so are bipartisan fixes," *American Medical Association News*, November 6, 2023.

- "Among the factors contributing to burnout that is leading physicians to retire early, cut back hours or leave medicine all together, are:

    - Administrative hassles that burden physicians daily and make them feel powerless to make meaningful changes.
    - Consolidation that gives more power to the country's largest hospital, health systems and insurers that leaves patients and physicians with less autonomy and fewer choices.
    - Falling Medicare payment rates – when adjusted for inflation, a 26% drop since 2001."[111]

Addressing the healthcare staffing shortage, Definitive Healthcare, 2023.

- 71,309 physicians left the workforce from 2021 through 2022.

- The driving forces behind the healthcare staffing shortage are: "Population growth and aging is leading to increased demand for care," "Many physicians are reaching retirement age" and "Feelings of burnout."

- "While being overworked contributes to physician burnout, it's not the only factor. In fact, it's not even the primary concern held among doctors and medical students. Three of the biggest reasons why healthcare professionals are burning out are: 1. Too many administrative tasks; 2. Poor work-life balance; 3. Insufficient salary."[112]

Physicians and Nonclinical Careers Report 2023, *Medscape*, 2023.

- 26 percent of the over 1,900 physicians surveyed said they were considering leaving their current jobs to pursue a nonclinical career; 40 percent of those said they planned to make the change within 3 years or less.

- Wanting to work fewer hours was most often cited as the primary reason for considering a change; 25 percent gave this reason. Twenty-four percent said they were "Burned out, but not from the COVID-19 pandemic."[113]

Physician Burnout & Depression Report 2023, *Medscape*, 2023.

When surveyed about what would most help reduce their burnout, limiting medical malpractice lawsuits was not considered important enough to list among the ten options from which physician respondents could choose.[114]

"Doctor shortages are here – time to act, Drs. Harmon and Orlowski weigh in," *AMA Moving Medicine*, April 13, 2022.

In an April 2022 podcast, American Medical Association President Dr. Gerald E. Harmon, stated:

> We've had data from AMA's own polls that show, almost independent of the COVID pandemic, as many as 20% of physicians are planning on leaving the profession within the next 24 months and a substantial number are talking about reducing their access and hours.
>
> There are a couple of reasons that they offer to me. They're burned out, a common thing. They're fatigued both emotionally and physically, and they're overwhelmed with the burden of practicing medicine, just the impediments that we face as practicing physicians every day, the barriers to delivering care in a quality manner from electronic records to prior authorization, to the cost of medications. It's just an ongoing assault on all of us as providers and they're really getting discouraged.[115]

In that same podcast, Association of American Medical Colleges Chief Health Care Officer Dr. Janis M. Orlowski said the following:

> The main two factors that are affecting this [doctor shortage] are, first of all, the growth in the U.S. population. So, we are using U.S. Census numbers. We see the growth in the U.S. population and that's a big factor. And number two, right behind it is the aging of the population. So, we really have the baby boom. They're in their sixties to seventies, maybe a decade plus or minus on either side. And we know that individuals consume more health care after the age of 60. So, we've got a very big generation that is moving over the age of 60. Those are the two biggest factors.[116]

"Quick COVID-19 Primary Care Survey: Series 30 Fielded August 13-17, 2021," Larry A. Green Center and Primary Care Collaborative, 2021.

Forty-five percent of the over 1260 primary care clinicians surveyed "personally know clinicians who have retired early/quit; 29% know practices that have closed." In addition, 21 percent of those surveyed are "unable to hire clinicians for open positions; 54% are unable to hire staff for open positions."[117]

Medical Malpractice Litigation: How It Works, Why Tort Reform Hasn't Helped, Northwestern University Pritzker Law School and Kellogg School of Management Professor Bernard S. Black et al., 2021.

Data analyzed by six top medical malpractice researchers revealed that "tort reform" doesn't attract physicians to a particular location.[118] More specifically,

- Whether "examining total physicians, high-risk specialties, primary care physicians, or rural physicians," the authors found no evidence that physicians choose to practice in a state because that state caps damages, noting, "Physicians' location decisions simply do not seem to respond very much to damage caps."

- They discovered, "In Texas, the assertion by medical malpractice reform proponents that Texas experienced a pre-reform exodus of physicians followed by a sharp post-reform turnaround is doubly false. There was neither an exodus before reform nor a dramatic increase after reform."

- As to ob-gyns, orthopedic surgeons or neurosurgeons, "three specialties that are generally seen as facing high risk and that figured prominently in the political campaign for tort reform…there is no evidence that tort reform meaningfully affected [their numbers in Texas], relative to what one would expect based on national trends."

- Regarding why physicians locate in particular areas, the researchers found this decision "appears to be primarily driven by factors other than liability risk, including population trends, location of the physician's residency, job opportunities within the physician's specialty, lifestyle choices, and demand for medical services, including the extent to which the population is insured."

- The authors' "bottom line is simple: it is time to bury the myth that damage caps have a meaningful effect on physician supply. Despite political rhetoric from cap proponents, other factors are more important in determining where physicians choose to practice."

"Report Highlights: *A Study of the Impact of Venue for Medical Professional Liability Actions*," Legislative Budget and Finance Committee, Pennsylvania General Assembly, 2020.

> "**Statewide, the availability of active medical staff with clinical privileges increased both pre- and post-tort reform**. The available data indicates no statewide trends between medical malpractice insurance rates and the number of active medical staff with clinical privileges. …Without widespread trends, and access to detailed physician data, we could not measure the specific effects of tort reform on physician availability, including the specific effect of the venue change alone."[119]

PART 4: MEDICAL MALPRACTICE INSURANCE

❖ INSURERS, WHOSE INVESTMENTS ARE SOARING, ARE PROFITING OFF THE BACKS OF DOCTORS WHO ARE EXPERIENCING UNJUSTIFIED PRICE-GOUGING.

Volcanic eruptions in insurance premiums for commercial customers (including doctors) occurred in the mid-1970s, the mid-1980s and early 2000s. These periods are known as "hard markets." The nation is in the fourth such cycle, with premiums now rising for doctors after well over a decade of stability and without justification. Hard market rate hikes never track malpractice claims or payouts. Instead, rates rise and fall in sync with the insurance cycle, dictated by the state of the economy and insurance industry profitability, including gains or losses experienced by the insurance industry's bond and stock market investments. However, for political effect during each crisis period, the insurance industry falsely blames lawsuits and the small number of injured patients who sue in court for the industry's decision to impose severe rate hikes on doctors.[120]

"Direct Written Premium Continues Rising, Easing Expense and Indemnity Payment Pressures for MPL Specialty Writers," *Medical Liability Monitor*, 2024.

- Total direct written premiums totaled more than $6.6 billion in 2023, an increase from the previous year).

- While 2024's "second-quarter premiums fall short of the mid-year peak in 2005 [i.e., the last hard market], they do represent the third-highest premiums in the data's 20-year history."

- "Of note is that the composite's full-year projection [for 2024] is expected to reach its highest mark of the past 20 years, with direct written premiums of $6.7 billion."

- "The composite's investment income through the second quarter of 2024 rose to levels not seen since the early 2000s. As [the data] illustrates, investment income more than doubled during the last two years, jumping from $255 million in the second quarter of 2022 to $526 million in the second quarter of 2024."[121]

"Medical Professional Liability Sector: The State of the U.S. Market," AM Best, May 1, 2024.

- "Essentially, while overall MPL premium was relatively flat in 2023, financial results were bolstered by favorable net investment income. Net investment income rose for the second year, with particularly strong growth of 41.6% in 2023 as yields rose to 3%."

- "The MPL composite's net income grew by 6.9% to $827 million driven by the significant increase in net investment income following the repositioning of many companies' investment portfolios to take advantage of higher interest rates."

- "Overall, the segment generated approximately $2.9 billion in pretax operating income and $3.9 billion in net income from 2019 to 2023 due to investment results."[122]

"Investment Performance Helps Sustain Underwriting Stalemate," *Medical Liability Monitor*, 2024.

"After-tax net income for our composite increased from slightly more than $400 million in 2022 to approximately $720 million in 2023, an increase of almost 75%. While underwriting results remained relatively flat in 2023, our composite's investment income was buoyed by interest rate hikes implemented by the Federal Reserve, which increased to nearly $1 billion and was the highest level of investment income since 2010. While inflation remains near the top of everyone's mind, for our composite, inflation's impact to date has resulted in a larger increase in investment gains than underwriting expenses."[123]

"Malpractice premium costs creep up as medical practices work to curb expenses," Medical Group Management Association, 2024.

- "An Aug. 6, 2024, MGMA *Stat* poll found that nearly seven in 10 (68%) medical groups reported an increase in their doctors' malpractice premiums since 2022…. Only 1% of respondents noted they saw malpractice premiums decrease over that period. Among medical groups with increased premiums, there was an average 11% increase since 2022."

- "The poll results show an even greater share of medical groups facing higher premiums compared to what respondents reported in a June 28, 2022, MGMA *Stat* poll in which 62% of practices reported that premiums had increased for their physicians since 2020."[124]

Missing Pieces for Revenue Recovery in the Post-Pandemic Era, Medical Group Management Association, 2023.

- "This marks another year since the start of the COVID-19 pandemic in which medical practices reported rising expenses associated with their malpractice premiums: A June 28, 2022, MGMA Stat poll found that 62% of medical practices reported an increase in their doctors' malpractice premiums since 2020."[125]

- According to that poll, the average increase was 14.3 percent. 47.8 percent reported an increase of 10-19 percent, while 15.6 percent reported an increase of 20-29 percent.[126] When announcing the poll results, the organization wrote, "***[A]lthough premiums have risen during this period, overall claims throughout the United States have dropped.***"[127] [emphasis added]

Prevalence of Medical Liability Premium Increases Unseen Since 2000s Continues for Fourth Year in a Row, American Medical Association, 2023.

- "[I]n the last four years (2019-2022), the proportions of premiums that increased year-to-year reached highs not seen since the 2000s."

- "The proportion of premiums that went up in 2018 almost doubled in 2019, from 13.7% to 26.5%. In 2020, this share grew to 31.1% of premiums that increased from the previous year. Once again, and despite a small dip in 2021, 36.2% of premiums increased in 2022, which was higher than in any year since 2005."[128]

Inventing Social Inflation 2023, Consumer Federation of America and Center for Justice & Democracy, 2023.

- "[D]octors have regularly been charged high premiums during periods when paid claims were dropping. For example, during the prior hard market, medical malpractice insurers misrepresented their actual losses by an incredible annual average of 37% and doctors paid the price with completely unjustified premium hikes."

- During the COVID-19 pandemic, "despite the fact that litigation significantly dropped, premiums continued to go up. …[M]edical malpractice insurers made plenty of money, with the medical professional liability industry's top-line revenue growth 'its strongest in nearly two decades,' resulting in 'a positive year as reflected in a variety of financial metrics' and better results 'than many anticipated just 12 months ago.'"

- "[W]e see a recent and unjustified jump in incurred losses (reserves) and premiums, despite the clear indications of declining claims payments. Indeed, on an unadjusted basis, 2021 saw medical liability insurers pay out less on claims than any year since 2011. On a CPI- and population-adjusted basis, insurers paid out significantly less than any year over the past 23 years reviewed for this report. The industry's incurred loss estimates, however, went in the other direction, making 2021 appear to be the highest loss year of the last 14 years, on an adjusted basis. Following those reserves are the highest adjusted (by inflation and population) annual earned premium for medical liability insurers since 2015."

- "The data and history suggest not that rates should be going up, but that once again doctors and healthcare providers are the victims of insurers' price-gouging."[129]

"Fictions and Facts: Medical Malpractice Litigation, Physician Supply, and Health Care Spending in Texas Before and After HB 4," University of Texas at Austin Law School Professor Charles Silver, Georgetown University Law School Professor David A. Hyman and Northwestern University Law School and Kellogg School of Management Professor Bernard S. Black, 2019.

- "[W]e find no evidence that the 'smoke' of the insurance crisis that prompted [Texas's 2003 medical malpractice] reforms was produced by an underlying 'fire' of rising liability. Measured in a variety of ways, before and during the insurance crisis, the performance of the liability system was stable."

- "[T]here were no major changes in the frequency of med mal claims, payout per claim, total payouts, defense costs, or jury verdicts that can explain the spike in premiums for med mal liability insurance that occurred in Texas in the years before the 2003 reforms…."

- "We used the [Texas Closed Claims Database] to learn whether legislatures findings [of a major jump in the frequency and severity of claims] were accurate. After careful study, we concluded they were not."[130]

❖ NEITHER "TORT REFORMS" NOR "CAPS ON DAMAGES" LOWER INSURANCE PREMIUMS FOR DOCTORS.

"The Dark Side of Insurance," University of Texas and Tel Aviv University Law Professor Ronen Avraham and Tel Aviv University President Ariel Porat, 2023.

> "[E]mpirical studies reveal premium *increases* after states enact damage caps. For instance, after Oklahoma passed insurer-supported damages caps, medical malpractice premium rates increased by 83 percent. Likewise, in Maryland, Missouri, and other states, insurers lobbied for damage caps claiming that they would reduce premiums. Ultimately, rates increased after legislature enacted reforms. Other studies support this conclusion, finding that caps above $750,000 increase premiums substantially."[131]

"How Do Insurers Price Medical Malpractice Insurance?" Northwestern University Law School and Kellogg School of Management Professor Bernard S. Black, Federal Deposit Insurance Corporation Financial Economist Jeffrey Traczynski and U.S. Census Bureau Senior Economist and Program Manager Victoria Udalova, 2022.

> "[W]e find evidence that the association between cap adoption and higher Premium/Cost Ratio is causal: as caps drive down insurer costs, premia do not fall in parallel with costs, leading to rising premia/cost ratios. These persist through the end of our sample period, well over a decade after the early 2000s wave of cap adoptions. We also find evidence for reverse causality, with a rising Premium/Cost Ratio predicting cap adoption."[132]

"The Impact of Medical Malpractice Reforms," Georgetown University Law Professor David A. Hyman and East China University of Political Science and Law Associate Professor Jing Liu, 2020.

A comprehensive review of available data and scholarly literature led researchers to conclude that "because malpractice claiming does not appear to be the cause of med mal crises, litigation-focused remedies are likely to be incomplete, underpowered, and inefficient in addressing what is, in the end, a problem in the market for med mal insurance."[133]

Premium Deceit 2016, Americans for Insurance Reform, 2016.

- During the 2002-2006 hard insurance market, "states that enacted new limits on patients' legal rights in medical malpractice cases (caps on damages plus other traditional tort reforms) saw an average 22.7 percent decrease in pure premiums from 2002 to the present – but states that did nothing saw a larger average drop of 29.5 percent."

- "What's more, states that enacted only caps on damages saw an average 21.8 percent decrease in pure premiums from 2002 to the present – but the states that did nothing saw an even greater average drop of 28.9 percent."

- "In sum, the data do not support any conclusion that limiting patients' legal rights – including capping damages – results in lower premiums for doctors."[134]

❖ INDUSTRY INSIDERS HAVE HISTORICALLY SAID THAT CAPPING DAMAGES WILL NOT LOWER INSURANCE RATES.

- **American Insurance Association:** "[T]he insurance industry never promised that tort reform would achieve specific premium savings."[135]

- **Sherman Joyce, President, American Tort Reform Association:** "We wouldn't tell you or anyone that the reason to pass tort reform would be to reduce insurance rates."[136]

- **Victor Schwartz, General Counsel, American Tort Reform Association:** "[M]any tort reform advocates do not contend that restricting litigation will lower insurance rates, and 'I've never said that in 30 years.'"[137]

- **State Farm Insurance Company (Kansas):** "[W]e believe the effect of tort reform on our book of business would be small. …[T]he loss savings resulting from the non-economic cap will not exceed 1% of our total indemnity losses.…"[138]

- **Aetna Casualty and Surety Co. (Florida):** After Florida enacted what Aetna Casualty and Surety Co. characterized as "full-fledged tort reform," including a $450,000 cap on non-economic damages, the insurer did a study of cases it had recently closed and concluded that Florida's tort reforms would not affect Aetna's rates. The company explained that "the review of the actual data submitted on these cases indicated no reduction of cost."[139]

- **Allstate Insurance Company (Washington State):** In asking for a 22% rate increase following passage of tort reform in Washington State, including a cap on all damage

awards, the insurer said, "[O]ur proposed rate would not be measurably affected by the tort reform legislation."[140]

- **Great American West Insurance Company (Washington State):** After the 1986 Washington tort reforms, Great American West said that on the basis of its own study, "it does not appear that the 'tort reform' law will serve to decrease our losses, but instead it potentially could increase our liability. We elect at this point, however, not to make an upward adjustment in the indications to reflect the impact of the 'tort reform' law."[141]

- **Vanderbilt University:** A regression analysis conducted by Vanderbilt University Economics Professor Frank Sloan found that caps on economic damages enacted after the mid-1970s insurance crisis had no effect on insurance premiums.[142]

❖ STRONG INSURANCE REGULATORY LAWS ARE THE ONLY WAY TO CONTROL INSURANCE RATES FOR DOCTORS AND HOSPITALS.

Comparing California and Illinois: Two states that historically enacted both severe caps on damages and strong insurance regulation.

CALIFORNIA

Cap. In 1975, California enacted a severe $250,000 cap on non-economic damages, the first in the nation – only recently raised after 50 years on the books.[143] This cap has greatly reduced the number of genuine malpractice cases brought in the state.

- Despite the reduction of legitimate cases, between 1975 and 1988, doctors' premiums in California increased by 450 percent, rising faster than the national average.[144]

- As a result of the cap, California's medical malpractice insurance industry became so bloated that "as little as 2 or 3 percent of premiums are used to pay claims" and "the state's biggest medical malpractice insurer, Napa-based The Doctors Company, spent only 10 percent of the $179 million collected in premiums on claims in 2009." Then Insurance Commissioner Dave Jones said that "insurers should reduce rates paid by doctors, surgeons, clinics and health providers while his staff scrutinizes the numbers."[145]

Insurance regulation. In 1988, California voters passed a stringent insurance regulatory law, Proposition 103 (Prop. 103), which ordered a 20% rate rollback, forced companies to open their books and get approval for any rate change before it takes effect and allowed the public to intervene and challenge excessive rate increases.

- In the twelve years after Prop. 103 (1988-2000), malpractice premiums dropped 8 percent in California, while nationally they were up 25 percent.[146]

- During the period when every other state was experiencing skyrocketing medical malpractice rate hikes in the mid-2000s, California's regulatory law led to public hearings on rate requests by medical malpractice insurers in California, which resulted in rate hikes being lowered three times in two years,[147] saving doctors $66 million.

- Prop. 103 allowed former state insurance commissioners to take action and lower excessive insurance rates for doctors. For example, according to an October 2012 news release issued by the California Department of Insurance,[148]

    - "Insurance Commissioner Dave Jones today announced the second medical malpractice rate reduction this year for NORCAL Mutual Insurance Company's physician and surgeon program. The company's 6.9 percent reduction saves primarily Southern California doctors approximately $8.5 million annually. This company initiated rate reduction follows a Department ordered 7.1 percent decrease in March for an overall savings of $18 million this year alone for physicians and surgeons insured by NORCAL Mutual."

    - "Last year Commissioner Jones ordered the top six medical malpractice insurance companies in California to submit rate filings to the Department of Insurance to justify their current rates. After a thorough review of those filings, Commissioner Jones called for rate reductions. As a result of the Commissioner's rejection of excessive rates, all six companies lowered their medical malpractice rates," amounting to "a total savings to medical providers of $52 million…."

    - "'I'm pleased the medical malpractice rates are continuing to be decreased under the Department's rate review process and authority,' said Commissioner Jones. 'These medical malpractice rate reductions show the important role that Proposition 103, which authorizes the insurance Commissioner to reject excessive rate hikes for property and casualty insurance, including medical malpractice insurance, has played in curbing medical malpractice rates since it was passed in 1988.'"

- Prop. 103 continues to save money for health care providers.

    - In 2023, "[i]n response to Consumer Watchdog's [Prop. 103] challenge to Medical Insurance Exchange of California's ('MIEC') proposed rate increase on doctors' and medical providers' medical malpractice insurance, MIEC has agreed to cut the average overall rates it charges by 7.2% and to pay special dividends to its members refunding 4.4% of premiums paid for policy years 2021 and 2022."

    - "Under the agreement reached by Consumer Watchdog, MEIC, and the California Department of Insurance, over 1,100 doctors and other healthcare provider policyholders will save $1.41 million in annual premiums under the approved rates as compared to the rates originally requested by MIEC. The special dividends will result in an additional $1.44 million being returned to the pockets of about 4,000 MIEC policyholders."[149]

ILLINOIS

In 2005, Illinois enacted a non-economic damages cap on compensation for injured patients ($500,000 for doctors and $1 million for hospitals) and a very strong insurance regulatory law. In February 2010, the Illinois Supreme Court struck down this cap as unconstitutional.[150] Because of a non-severability clause, the insurance regulatory law was struck down as well. In the five years these laws were in place, the following occurred:

Cap. The cap never really affected settlements or insurance rates in Illinois during the five years it existed. This was acknowledged in a May 2010 webinar sponsored by AM Best, where a Chicago-based insurance attorney said:

> "It may be headlines in other places but here in Cook County [Illinois] I think that the Supreme Court's decision in *Lebron* was fully anticipated and discounted. None of the settlements that I've been involved in for the last couple of years paid the slightest attention to the caps anymore. There was almost a universal acceptance that it would be overturned by the Supreme Court. In fact it was overturned in Cook County two years ago. *Lebron* was a Cook County case going up, so the caps haven't been law here for quite some time."[151]

Insurance Regulation. The strong insurance regulatory reforms *did* take effect, however, and had a significant impact.

In October 2006, the Illinois Division of Insurance announced that an Illinois malpractice insurer, Berkshire Hathaway's MedPro, would be expanding its coverage and cutting premiums for doctors by more than 30 percent. According to state officials and the company itself, this was made possible because of new insurance regulatory law enacted by Illinois lawmakers in 2005, and expressly not due to the cap on compensation for patients.[152] The new law required malpractice insurers to disclose data on how to set their rates. This, according to the state's Division of Insurance Director Michael McRaith, allowed MedPro to "set rates that are more competitive than they could have set before."[153]

In February 2010, the Illinois Division of Insurance said:[154]

> "The 2005 Reform Laws imposed changes to the Illinois Insurance Code that improved insurer reporting and transparency requirements and enhanced the Department's rate oversight authority. Since 2005, the Department has observed improvements in the medical malpractice insurance market. In particular, the Department observed:
>
> - **A decrease in medical malpractice premiums.** Gross premium paid to medical malpractice insurers has declined from $606,355,892 in 2005 to $541,278,548 in 2008;

- **An increase in competition among companies offering medical malpractice insurance.** In 2008, 19 companies offering coverage to physicians/surgeons each collected more than $500,000 in premiums, an increase from 14 such companies in 2005; and

- **The entry into Illinois of new companies offering medical malpractice insurance.** In 2008, five companies collected more than $22,000,000 in combined physicians/surgeons premiums – and at least $1,000,000 each in premiums – that did not offer medical malpractice insurance in 2005."

PART 5: PATIENT SAFETY

❖ MEDICAL ERRORS OCCUR IN ALARMING NUMBERS AND ARE EXTREMELY COSTLY.

NOTE*:* This section presents overviews of patient safety problems. For specific areas of harm, *see* "Diagnostic Errors are the Most Common and Costly Errors" and "Additional Categories and Causes of Unsafe Care," below.

Hospital Safety Grade, Leapfrog Group, 2024.

Using up to 22 evidence-based measures of patient safety to determine a hospital's overall "ability to prevent medical errors, accidents and infections,"[155] Leapfrog found that 43 percent of the nearly 3,000 hospitals studied merited a C, D or F safety grade.[156] This rate is consistent with Leapfrog data from previous years.[157]

"Safety of inpatient care in surgical settings: cohort study," Brigham and Women's Hospital Public Health Professor Antoine Duclos et al., 2024.

Researchers studied admissions to 11 Massachusetts hospitals and found that adverse events "affect more than a third (38%) of adults undergoing surgery," with nearly half "resulting in serious, life threatening or fatal harm" and the majority being "potentially preventable."[158] The findings "showed that adverse events remain widespread in contemporary healthcare, causing substantial and preventable patient harm during hospital admission."[159]

"Surgeon and Surgical Trainee Experiences After Adverse Patient Events," University of Pennsylvania Medical School Surgery Instructor Sara P. Ginzberg et al., 2024.

82.8 percent of surgical trainees surveyed "reported they had been involved in at least 1 adverse patient event in the past year" and 22.6 percent said they "were involved in 5 or more events."[160]

Sentinel Event Data: 2023 Annual Review, Joint Commission, 2024.

- The Joint Commission defines a "sentinel event" as a patient safety event that results in death, permanent harm or severe harm.

- "There were 1,411 sentinel events reported in 2023, consistent with reported volume in 2022." As in previous years, patient falls was the most reported sentinel event (48 percent); other leading categories included wrong surgery (8 percent), unintended retention of foreign object (8 percent) and delay in treatment (6 percent).

- "Most reported sentinel events in 2023 occurred in the hospital settings (88%). Leading event types within this setting included falls (51%), unintended retention of foreign object (8%) [and] wrong surgeries (8%)…. Wrong surgeries (38%), delays in treatment (11%), op/post-operation complications (11%), and fire/burns (e.g., fire/burn from light source or bovie) (11%) were leading event types in the ambulatory care setting. Fire/burns (e.g., smoking while on oxygen) (40%) and patient falls (37%) were leading event types in the home care setting, and patient falls (50%) and delays in treatment (14%) were leading event types in the critical access hospital setting."[161]

- The analysis also found that "four patient safety indicators (PSIs) account for 74% of all patient safety events: in-hospital fall resulting in hip fracture, collapsed lung due to procedure or surgery in or around the chest, pressure sores or bed sores acquired in the hospital, and catheter-related bloodstream infections."[162]

"Number of U.S. hospitals Medicare punished for high readmissions FY 2015-2023," *Statista*, 2024 and "Hospital Readmissions Reduction Program (HRRP)," Centers for Medicare and Medicaid Services, 2024.

- The Hospital Readmissions Reduction Program, run by Centers for Medicare and Medicaid Services (CMS), examines how frequently patients with heart failure, heart attacks, pneumonia, chronic obstructive pulmonary disease, coronary artery bypass grafts and knee/hip replacements return to a hospital within 30 days of discharge and lowers future payments to hospitals with higher-than-expected readmission rates.[163]

- As a result of CMS' analysis of two-and-a-half years of data, 42 percent of the nation's 5,236 hospitals faced readmission penalties in FY2023.[164]

***Insights into the U.S. Maternal Mortality Crisis: An International Comparison*, Commonwealth Fund, 2024.**

- "The United States continues to have the highest rate of maternal deaths of any high-income nation, despite a decline since the COVID-19 pandemic. And within the U.S., the rate is by far the highest for Black women. Most of these deaths – over 80 percent – are likely preventable."[165]

- "In 2022, U.S. women had the highest death rate from complications of pregnancy and childbirth – 22 deaths per 100,000 live births – a maternal mortality ratio more than double, sometimes triple, that in other high-income countries in this study."[166]

"The Safety of Inpatient Health Care," Brigham and Women's Hospital Center for Patient Safety Research and Practice Executive Director and Harvard Medical School and School of Public Health Professor David W. Bates et al., 2023.

"In a random sample of 2809 admissions, we identified at least one adverse event in 23.6%. Among 978 adverse events, 222 (22.7%) were judged to be preventable and 316 (32.3%) had

a severity level of serious (i.e., caused harm that resulted in substantial intervention or prolonged recovery) or higher. A preventable adverse event occurred in 191 (6.8%) of all admissions, and a preventable adverse event with a severity level of serious or higher occurred in 29 (1.0%). There were seven deaths, one of which was deemed to be preventable. Adverse drug events were the most common adverse events (accounting for 39.0% of all events), followed by surgical or other procedural events (30.4%), patient-care events (which were defined as events associated with nursing care, including falls and pressure ulcers) (15.0%), and health care–associated infections (11.9%)."[167]

Adverse Events in Hospitals: A Quarter of Medicare Patients Experienced Harm in October 2018, Office of Inspector General, U.S. Department of Health and Human Services, 2022.

OIG analyzed "medical records for a random sample of 770 Medicare patients who were discharged from acute-care hospitals during October 2018" and found the following:[168]

- "Twenty-five percent of Medicare patients experienced patient harm during their hospital stays in October 2018. Patient harm includes adverse events and temporary harm events."
- "Twelve percent of patients experienced adverse events, which are events that led to longer hospital stays, permanent harm, life-saving intervention, or death."
- "Physician-reviewers determined that 43 percent of harm events were preventable, with preventable events commonly linked to substandard or inadequate care provided to the patient."

Peer review of a report on strategies to improve patient safety, National Academies of Sciences, Engineering and Medicine, 2021.

"[T]he country is at a relative standstill in patient safety progress. Although the original *To Err Is Human* report (IOM, 2000) commanded national attention more than two decades ago, the country has not achieved the level of safety in daily patient care that we have come to expect from other industries, such as when we board an airplane. Continuing on the current trajectory is not likely to produce substantial improvements in patient safety."[169]

Surgery Risks: Through the Lens of Malpractice Claims, Coverys, 2020.

Analysis of 2,579 surgery-related closed malpractice claims across a five-year period (2014-2018) revealed that 29 percent of all surgical injuries were "permanent-significant" or worse, with 9 percent resulting in death.[170]

"Nurses' and Patients' Appraisals Show Patient Safety in Hospitals Remains a Concern," Center for Health Outcomes and Policy Research Director and Nursing Professor Linda H. Aiken et al., 2018.

Researchers assessed safety by examining reports from over 53,000 RNs and more than 805,000 patients at 535 hospitals in four large states at two time points between 2005 and 2016. The results reflected little to no progress toward improving patient safety and preventing patient harm. Among the key findings:[171]

- Over the past decade, "only 21 percent of hospitals substantially improved their clinical work environments; 71 percent made no improvements and 7 percent experienced deteriorating work environments."

- "In the study, about 30% of nurses graded their own hospitals 'unfavorably' on measures of patient safety and infection prevention…."

- "Patients also expressed concern about quality and safety with 30 percent reporting that they would not definitely recommend their hospital. Nearly 40 percent of patients said that they did not always receive help quickly from hospital staff, and nearly 40% reported that medications were not always explained before given."

"Measuring performance on the Healthcare Access and Quality Index for 195 countries and territories and selected subnational locations: a systematic analysis from the Global Burden of Disease Study 2016," GBD 2015 Healthcare Access and Quality Collaborators, 2018.

After analyzing how well the United States fared at preventing deaths from medical errors, Global health researchers gave the U.S. a 70 out of 100. More than 55 countries exceeded that score.[172] These findings are consistent with data reported the previous year.[173]

Americans' Experiences with Medical Errors and Views on Patient Safety, NORC at the University of Chicago and IHI/NPSF Lucian Leape Institute, 2017.

A 2017 nationwide survey investigating Americans' experiences with medical errors revealed the following:[174]

- "Combined, 41 percent of adults in the United States have either experienced a medical error in their own care or were personally involved in a situation where a medical error was made in the care of someone close to them."

- Sixty-seven percent who reported experiencing an error were not informed of the mistake by a health care provider or someone else at the facility where the error happened.

- "Twenty-seven percent of those with medical error experience say the error had a short-term effect on their physical health that lasted less than a month, 27 percent say the error had a long-term effect that lasted more than a month, and 30 percent say the error had a permanent effect on their physical health. Just 15 percent say the medical error had no effect on their physical health."

"Medical error – the third leading cause of death in the US," Johns Hopkins University Surgery Professor and Multidisciplinary Pancreatitis Center Surgical Director Martin A. Makary and Surgery Department Research Fellow Michael Daniel, 2016.

- "Analyzing medical death rate data over an eight-year period, Johns Hopkins patient safety experts have calculated that more than 250,000 deaths per year are due to medical error in the U.S. Their figure…surpasses the U.S. Centers for Disease Control and Prevention's (CDC's) third leading cause of death – respiratory disease, which kills close to 150,000 people per year."

- "10 percent of all U.S. deaths are now due to medical error."

- "Medical errors are an under-recognized cause of death."[175]

❖ STATE-SPECIFIC ERROR TRENDS ARE SIMILAR.

- Connecticut[176]
- Massachusetts[177]
- Minnesota[178]
- New Jersey[179]
- Pennsylvania[180]
- Washington[181]

❖ DIAGNOSTIC ERRORS ARE THE MOST COMMON AND COSTLY ERRORS.

See also, PART 1: MEDICAL MALPRACTICE LITIGATION; PART 5: PATIENT SAFETY ("Additional Categories and Causes of Unsafe Care").

"Data analysis reveals common errors that prevent patients from getting timely, accurate diagnoses," ECRI, 2024.

- One-third of adverse patient safety events "submitted to ECRI and the [Institute for Safe Medication Practices Patient Safety Organization] in 2023 by healthcare providers around the U.S." involved diagnostic errors.

- "ECRI's data analysis found that most errors (nearly 70 percent) occurred during the testing process – including when healthcare staff are ordering, collecting, processing, obtaining results, or communicating results. Twelve percent of errors occurred in the monitoring and follow-up phase; with nearly nine percent during the referral and consultation phase."[182]

Hidden In Plain Sight: Exposing the Drivers of Diagnostic Error, Coverys, 2024.

A review of closed claims data from 2019-2023 identified "key facts related to diagnostic error across all settings…. It is important to note that our data is consistent with national data." Among the findings:[183]

- 52% of diagnosis-related events in the emergency department "resulted in death (36%) or a high-severity injury (16%). Events involving death accounted for 51% of the indemnity paid."

- "These top two categories account for more than 40% of ED diagnostic error events: 1. Infection, sepsis, abscess. 2. Cerebral vascular accident (CVA), pulmonary embolism (PE), and deep vein thrombosis (DVT). …Common points of error include communication breakdown between healthcare providers and delays in patient testing and transfer."

- "The third-highest category for missed diagnoses is orthopedic cases, accounting for 14% of ED diagnostic error events. …Common points of error include misinterpretations resulting in missed fractures, delays in testing, overlooking secondary symptoms or findings, communication breakdown, and failure to communicate changes in the final read."

"Adverse diagnostic events in hospitalized patients: a single-centre, retrospective cohort study," Brigham and Women's Hospital Medicine Associate Professor Anuj K. Dalal et al., 2024.

- Researchers found that one of every 14 hospitalized patients who received general medical care experienced a harmful diagnostic error within 90 days of admission, "the majority of which were preventable."[184] Nearly 62 percent of harmful diagnostic errors were characterized as delays.

- According to the study, which examined patients admitted to a large Boston hospital at various periods between July 2019 and September 2021, "[t]he most frequent errors involved cases of heart and kidney failure, sepsis, pneumonia, respiratory failure, altered mental state, belly pain and low blood oxygen levels."[185] In addition, 55 percent of high-risk cases involved severely harmful diagnostic errors.

"Ambulatory Care Exposures Result in High Claims Frequency and Severity," Coverys, 2024.

- "Coverys analyzed 5,930 events from five years of closed medical malpractice claims (2018-2022)" and found that "diagnosis-related allegations accounted for 36% of claims and 55% of indemnity paid" in office and clinic locations. (Surgery came in second at 23% of events and 9% of indemnity paid.) This finding is not unique to the office setting

as diagnosis-related claims are the most common allegation in medical malpractice claims in most settings."

- "Diagnosis-related claims tend to be severe – with 55% resulting in death or high-severity injury. Missed or delayed cancer diagnoses were the most common type of diagnosis-related claim. The top missed cancer diagnoses were prostate, lung, colorectal, and breast cancer."[186]

"Diagnostic Errors in Hospitalized Adults Who Died or Were Transferred to Intensive Care," University of California San Francisco School of Medicine Professor of Medicine Andrew D. Auerbach et al., 2024.

- "Researchers examined a random sample of nearly 2,500 patient records from 29 academic medical centers for adults hospitalized with general medical conditions and who were transferred to an ICU or died.
    - 550 of those patients, or approximately 23%, experienced a diagnostic error.
    - 18%, or 436 patients, experienced temporary or permanent harm as a result.
    - Of the 1,863 patients who died, a diagnostic error was deemed a contributing factor about 7% of the time."[187]
- "The diagnostic process faults most highly associated with these errors were problems with patient assessment, as well as test ordering and interpretation, the authors explained."[188]
- "'The main takeaways for us were the incidence of errors, which was higher than we expected, as were the harms,'" the study's lead author told *MedPage Today*.[189]

"How Claims History Can Assist Risk Management," Coverys, November 21, 2023.

Closed claims data from 2018-2022 show that "[d]iagnosis-related allegations were the leading cause of claims, accounting for more than 25% of claims and nearly 40% of indemnity paid. Diagnosis-related claims frequently involved allegations of negligent patient evaluation, interpretation of tests, or ordering of tests. There were also allegations involving referral management and follow-up. Case examples included failure to diagnose a cancerous mass, resulting in metastasis and death; failure to evaluate a patient, resulting in cardiac arrest and death; and failure to diagnose an evolving stroke, resulting in thromboembolic stroke and permanent brain damage."[190]

Diagnostic Errors in the Emergency Department: A Systematic Review, Agency for Healthcare Research and Quality, 2023.

- About 1 in 18 emergency department (ED) patients receive an incorrect diagnosis, with "1 in 50 suffering an adverse event, and 1 in 350 suffering permanent disability or death. These rates are comparable to those seen in primary care and hospital inpatient care."

- "We estimate that among 130 million emergency department (ED) visits per year in the United States that 7.4 million (5.7%) patients are misdiagnosed, 2.6 million (2.0%) suffer an adverse event as a result, and about 370,000 (0.3%) suffer serious harms from diagnostic error. Put in terms of an average ED with 25,000 visits annually and average diagnostic performance, each year this would be over 1,400 diagnostic errors, 500 diagnostic adverse events, and 75 serious harms, including 50 deaths per ED."

- "Five conditions (#1 stroke, #2 myocardial infarction, #3 aortic aneurysm/dissection, #4 spinal cord compression/injury, #5 venous thromboembolism) account for 39 percent of serious misdiagnosis-related harms, and the top 15 conditions account for 68 percent. Variation in diagnostic error rates by disease are striking (range 1.5% for myocardial infarction to 56% for spinal abscess, with the other thirteen falling between 10% and 36%). Stroke, the top serious harm-producing disease, is missed an estimated 17% of the time."

- "Root causes of ED diagnostic errors were mostly cognitive errors linked to the process of bedside diagnosis. Malpractice claims associated with serious misdiagnosis-related harms involved failures of clinical assessment, reasoning, or decision making in about 90 percent of cases. Similar findings were seen in incident report data. These issues are not unique to the ED – they are seen across clinical settings, regardless of study method."[191]

"Burden of serious harms from diagnostic error in the USA," Johns Hopkins University School of Medicine Armstrong Institute Center for Diagnostic Excellence Director and Neurology, Ophthalmology and Otolaryngology Professor David E. Newman-Toker et al., 2023.

- "An estimated 795,000 Americans become permanently disabled or die annually across care settings because dangerous diseases are misdiagnosed. Just 15 diseases account for about half of all serious harms, so the problem may be more tractable than previously imagined."[192]

- According to the paper's lead author, "Settling on an exact number is hard because many cases of misdiagnosis go undetected, he said. It could be fewer than his study identified, or more – between half a million and a million – though in any event it would be the most common cause of death or disability due to medical malpractice."[193]

- "He likens the issue of misdiagnosis to an iceberg, saying cases leading to death and disability are but a small fraction of the problem. 'We focused here on the serious harms, but the number of diagnostic errors that happen out there in the U.S. each year is probably somewhere on the order of magnitude of 50 to 100 million,' he said. 'If you actually look, you see it's happening all the time.'"[194]

"Diagnostic Errors Are Everyone's Problem," CRICO, 2021.

- Over 20 percent of medical professional liability cases closed from 2010-2019 involved a diagnosis-related allegation.

- Internal medicine, family medicine, emergency medicine and radiology account for half of the more than 70,000 diagnosis-related MPL cases.

- "The universality of diagnostic pitfalls across all specialties and services is evident again in the list of contributing factors specific to the patient assessment process," such as "[f]ailure to order a diagnostic test" and "[f]ailure to appreciate relevant sign/symptom/test result."[195]

"Serious misdiagnosis-related harms in malpractice claims: The 'Big Three' – vascular events, infections, and cancers," Johns Hopkins University School of Medicine Armstrong Institute Center for Diagnostic Excellence Director and Neurology, Ophthalmology and Otolaryngology Professor David E. Newman-Toker et al., 2019.

Researchers analyzed over 55,000 malpractice claims and confirmed that "inaccurate or delayed diagnosis remains the most common, most catastrophic and most costly of medical errors." More specifically, "They found that of the diagnostic errors causing the most harm, three quarters (74.1 percent) are attributable to just three categories of conditions: cancer (37.8 percent), vascular events (22.8 percent) and infection (13.5 percent). These severe cases resulted in $1.8 billion in malpractice payouts over the course of 10 years. The authors also showed that, collectively, the top five in each category account for nearly half (47.1 percent) of all the serious harms."[196]

Emergency Department Risks: Through the Lens of Liability Claims, Coverys, 2019.

After analyzing over 1,300 closed medical malpractice claims filed against hospitals between 2014 and 2018 over emergency department care, the insurance provider found that failure or delay in making a diagnosis accounted for over half the allegations. Moreover, a "staggering 44% of the Coverys cases that were classified as diagnosis-related identified the initial history and physical (H&P) and evaluation of the patient as the stage at which the diagnostic process broke down," while problems related to ordering diagnostic/lab tests ranked as the second most common group of allegations, at 27 percent.[197]

Red Signal Report: Claims Data Signals & Solutions to Reduce Risks and Improve Patient Safety, Coverys, 2019.

An analysis of more than 1,800 closed medical malpractice claims brought against primary care doctors from 2013 to 2018 revealed not only that diagnostic errors were the leading cause of liability claims (46 percent) and accounted for the highest proportion of payouts (68

percent) but also that 45 percent of injuries in diagnostic-related cases resulted in a patient's death.[198]

"Learning from Patients' Experiences Related to Diagnostic Errors Is Essential for Progress in Patient Safety," Baylor College of Medicine Assistant Professor and Houston VA Medical Center for Innovations in Quality, Effectiveness and Safety Researcher Traber Davis Giardina et al., 2018.

Baylor College of Medicine researchers analyzed 465 written patient- and family-reported error narratives submitted between January 2010 and February 2016 and "identified 184 unique patient narratives of diagnostic error. Problems related to patient-physician interactions emerged as major contributors" to errors in 75 percent of the accounts.[199] Among the behaviors cited:[200]

- Physicians ignored or disregarded patients' knowledge.
- Physicians disrespected patients by belittling, mocking and stereotyping.
- Physicians failed to communicate effectively or refused to speak with patients and family members.
- Physicians used fear to influence care decisions, misled patients or misinformed them.

❖ SPECIFIC CATEGORIES AND CAUSES OF UNSAFE CARE.

Cardiovascular Surgery.

"Failure to Rescue Female Patients Undergoing High-Risk Surgery," University of Michigan Health Cardiac Surgery Chair and Frankel Cardiovascular Center Director Gorav Ailawadi et al., 2024.

- "Female patients who underwent four common but serious procedures – abdominal aortic aneurysm repair, coronary artery bypass surgery, or aortic or mitral valve replacements – later developed complications at the same rate as men. But the study found these women were more likely to die within 30 days than men with the same serious post-op problems."
- "Based on medical records from more than 860,000 Medicare patients who were treated from October 2015 to February 2020 (just before Covid-19 surged), the researchers concluded that surgical teams failed to rescue female patients with complications more often than male patients, missing opportunities to send them back for a reoperation or other remedy."[201]

Care Transitions.

Diagnostic Safety Across Transitions of Care Throughout the Healthcare System: Current State and a Call to Action, Agency for Healthcare Research and Quality, 2023.

- "Transitions of care represent a vulnerable moment for patients and families with high potential for diagnostic error, regardless of the care contexts between which the transition occurs. Although handoffs between shifts have been largely recognized as vulnerable moments for patient care, transitions between other contexts have not been as readily recognized as having such high potential for diagnostic error. Each unique context carries its own risks for diagnostic error."

- Emergency departments (EDs) "are among the most common settings in which diagnostic error may occur, for many reasons, including encounter brevity, high patient acuity and volumes, staffing issues, and undifferentiated presentations with fewer available data points. These challenges produce second-order issues that further complicate the diagnostic process."

- "In addition to being common, diagnostic errors and uncertainty at the time of ED-hospital admission are high risk: approximately 3 in 20 occur in patients who ultimately experience severe harm or death, for several reasons. …Second, and relatedly, early diagnostic errors can propagate other types of medical errors such as admission decisions (e.g., triage to an inappropriate level of care) or inappropriate medication choices. Finally, admission occurs early in a patient's hospital course, when patients may be medically unstable or undifferentiated and therefore most vulnerable to cascading errors."

- "Similar to the ED-to-inpatient transition, patients transferred from the ICU to the general ward face numerous obstacles, placing them at significant risk for diagnostic error."

- "The transition from the OR to the ICU involves coordinating teams from multiple disciplines in the movement and management of critically ill patients and complex equipment. This transition is prone to technical and diagnostic error due to not only the high patient acuity and time pressure common across many care transitions, but also the competing prioritization of information among team members from different disciplines, including anesthesia, surgery, and critical care."

- "Patients transitioning from the inpatient to the outpatient setting are also vulnerable to diagnostic error as the discharging teams' provisional or working diagnoses may evolve posthospitalization."[202]

Care Transitions: Through the Lens of Malpractice Claims, Coverys, 2021.

- Care transitions include patient movements such as "office-to-office, emergency department-to-home, unit-to-unit within a hospital, and from hospital to post-acute care facility."

- "Death and high injury severity accounted for 59% of [care transition] events and 66% of indemnity paid." High injury "includes major permanent injury (like blindness in both eyes, paraplegia, bowel injury requiring permanent colostomy) and grave injury (like severe cerebral palsy, vegetative state, or untreatable and widespread metastatic cancer)."

- "Claims stemming from care transitions are 29% more costly than claims arising from other allegations."

- "Just three medical specialties – general medicine, surgery, and emergency medicine – were implicated in 63% of events and accounted for 64% of care transition cases with indemnity paid."[203]

"Hospital transfers can leave diagnoses behind," *Minneapolis Star Tribune*, July 28, 2018.

In a 2017 study, Stanford University researchers "found that patients who move from one hospital to another experience longer stays, more medical mistakes and greater odds of dying in care."[204]

"Inadequate hand-off communication," Joint Commission, 2017.

"Inadequate hand-off communication is a contributing factor to adverse events, including many types of sentinel events. The Joint Commission's sentinel event database includes reports of inadequate hand-off communication causing adverse events, including wrong-site surgery, delay in treatment, falls, and medication errors. A study released in 2016 estimated that communication failures in U.S. hospitals and medical practices were responsible at least in part for 30 percent of all malpractice claims, resulting in 1,744 deaths and $1.7 billion in malpractice costs over five years."[205]

Childbirth.

See also, PART 1: MEDICAL MALPRACTICE LITIGATION; PART 5: PATIENT SAFETY ("Timing (Day, Week, Month)").

"Maternal deaths and injuries: Top 10 takeaways from USA TODAY investigation of hospitals," *USA TODAY*, March 11, 2019.

- "Thousands of mothers are needlessly dying or sustaining life-altering injuries because of medical mistakes and poor care."

- "Hospitals know how to protect mothers. They just aren't doing it. About half of maternal deaths and injuries could be prevented or reduced with better medical care. For years, experts have recommended that doctors, nurses and hospitals follow safety practices known to save lives. But USA TODAY found that, at some hospitals, less than 15% of women experiencing childbirth emergencies quickly received recommended treatments."

- Hemorrhage and high blood pressure "are among the leading killers of new moms, but they also are among the most preventable with better medical care. As many as 90% of hemorrhage deaths and 60% of hypertension deaths could be prevented."

- "Moms suffer complications far more often at some hospitals. …About one of every eight hospitals – 120 in all – had rates double the norm."[206]

Maternal/Fetal Risks: Using Claims Analysis to Improve Outcomes, Coverys, 2019.

The insurer's analysis of 472 obstetric-related closed claims across a five-year period (2013-2017) revealed that the single largest cause of obstetrical claims was "alleged negligence during the management of labor – accounting for 40% of claims and 49% of indemnity paid."[207]

"Clinical capital and the risk of maternal labor and delivery complications: Hospital scheduling, timing and cohort turnover effects," Colorado State University Economics and Epidemiology Departments Associate Professor Sammy Zahran et al., 2019.

Researchers analyzed Texas Department of State Health Services data on more than two million cases from 2005 to 2010 and found that the quantity of delivery complications are substantially higher in teaching hospitals. More specifically,

- "Mothers delivering their infants in teaching hospitals are 2.2 times more likely to experience a delivery complication than mothers birthing at non-teaching hospitals."

- "The risk also increases by a multiplicative factor of 1.3 at teaching hospitals in July, when new residents join the staff rotation. By June, after a full year of training and integration, the risk of a delivery complication at these same hospitals is statistically indistinguishable from chance."[208]

Children.

See also, PART 1: MEDICAL MALPRACTICE LITIGATION; PART 5: PATIENT SAFETY ("Emergency Rooms and Boarding," "Stress/Burnout/Depression").

"State and National Estimates of the Cost of Emergency Department Pediatric Readiness and Lives Saved," Oregon Health and Science University Emergency Medicine Professor Craig D. Newgard et al., 2024.

- "More than 80 percent of emergency departments in United States hospitals are not fully prepared for pediatric cases…despite the fact that children make up about 20 percent of visits each year." As a result, thousands of children die after E.R. visits each year.

- "[I]f every emergency department in the United States had the core features of 'pediatric readiness,'" one in four child deaths after E.R. visits could be prevented.[209]

"Pediatric Medication Safety in the Emergency Department," American College of Emergency Physicians, 2023.

In March 2023, the medical association issued a policy statement outlining the extent to which children suffer avoidable medication errors in the emergency room.[210] Among the research cited:

- "Medication errors are by far the most common type of medical error occurring in hospitalized patients, and the medication error rate in pediatric patients has been found to be as much as 3 times the rate in adult patients."

- "The pediatric emergency care setting is recognized as a high-risk environment for medication errors because of a number of factors, including medically complex patients with multiple medications who are unknown to emergency department staff, a lack of standard pediatric drug dosing and formulations, weight-based dosing, verbal orders, a hectic environment with frequent interruptions, lack of clinical pharmacists on the emergency department (ED) care team, inpatient boarding status, use of information technology systems that lack pediatric safety features, and numerous transitions in care. In addition, the vast majority of pediatric patients seeking care in EDs are not seen in pediatric hospitals but rather in community hospitals, which may treat a low number of pediatric patients."

- "Studies also outline the problem of medication errors in children in the prehospital setting."

"Principles of Pediatric Patient Safety: Reducing Harm Due to Medical Care," American Academy of Pediatrics, 2019.

In February 2019, the medical association issued a policy statement outlining studies that reflect the extent to which children suffer avoidable medical errors.[211] Among the research cited:

- "Errors in prescribing, dispensing, and administering medications represent a substantial portion of the preventable medical errors in children despite electronic prescribing."

- "A study of hospitalized, pediatric, nonnewborn patients in the United States revealed a medication error rate of 1.81 to 2.96 per 100 discharges. Teaching hospitals and settings where patients had more complex medical needs showed significantly higher error rates…."

- "Other studies, including one in which a trigger tool was used, have revealed myriad nonmedication harms, with total rates as high as 40 harms per 100 patients. Harms reported include accidental extubation, pressure ulcers, patient misidentification, delays in diagnosis, intravenous infiltrates, and other adverse events attributed to communication, training, and systems failures."

"U.N.C. Doctors Were Alarmed: 'Would I Have My Children Have Surgery Here?'" *New York Times*, May 31, 2019.

There are "concerns about the quality and consistency of care provided by dozens of pediatric heart surgery programs across the country.… At least five pediatric heart surgery programs across the country were suspended or shut down in the last decade after questions were raised about their performance."[212]

"Parent-Reported Errors and Adverse Events in Hospitalized Children," Harvard Medical School and Boston Children's Hospital Researcher Alisa Khan et al., 2016.

- Roughly one in ten parents spotted safety incidents that their child's physician did not.

- 62 percent of the safety incidents parents reported were medical mistakes.

- 30 percent of those medical mistakes caused harm and were preventable.

- Children suffering medical errors appeared to have longer hospital stays.

- "Parents identified communication problems as a contributing factor in a number of errors, including instances when day and night staff didn't note a medication change and when written information for one patient was documented in a different patient's medical record."[213]

Clinics/Doctors' Offices/Surgery Centers/Ambulatory Care.

See also, PART 5: PATIENT SAFETY ("Diagnostic Errors are the Most Common and Costly Errors.")

"Ambulatory Care Exposures Result in High Claims Frequency and Severity," Coverys, 2024.

- "Coverys analyzed 5,930 events from five years of closed medical malpractice claims (2018-2022) and found that office and clinic locations are the second-most-frequent location for claims (accounting for 25% of all claims) and resulted in the highest percentage of indemnity paid (26% of indemnity paid)."[214]

Medicare's Oversight of Ambulatory Surgery Centers, Office of Inspector General, U.S. Department of Health and Human Services, 2019.

The federal agency analyzed Medicare data on ambulatory surgery centers (ASCs) and found the following:[215]

- "Just over three-fourths of the facilities inspected during 2013-2017 had at least one deficiency and 25% had serious deficiencies. The most common one were lapses in infection control, which made up about 20% of the deficiencies. 'Serious deficiencies' are those grave enough to indicate what the report called 'pervasive noncompliance' and posing 'a serious threat to patient health and safety.'"

- "Of the 732 complaints that states received about ASCs during 2013-2017, nearly half were substantiated. They included a finding that the ASC 'failed to properly assess patients pre-operatively, did not have medical records for some patients, and did not follow its own procedures.'"

- "Of the ASCs inspected, roughly a third had deficiencies in observing pharmaceutical requirements, environmental controls, or patient rights, and some failed to meet all three."

"Serious misdiagnosis-related harms in malpractice claims: The 'Big Three' – vascular events, infections, and cancers," Johns Hopkins University School of Medicine Armstrong Institute Center for Diagnostic Excellence Director and Neurology, Ophthalmology and Otolaryngology Professor David E. Newman-Toker et al., 2019.

Researchers analyzed all 11,592 diagnostic error cases between 2006 and 2015 that were drawn from a list of open and closed U.S. malpractice claims documented in the national Comparative Benchmarking System database and "found that most of the diagnostic errors (71.2 percent) associated with the malpractice claims occurred in ambulatory settings – either in emergency departments, where missed infections and vascular events were more of a concern, or outpatient clinics, where misdiagnoses were more likely to be cancer-related."[216]

Deep Dive: Safe Ambulatory Care, Strategies for Patient Safety & Risk Reduction, ECRI, 2019.

- An analysis of 4,355 adverse events reported by ambulatory care settings between December 2017 and November 2018 revealed that diagnostic testing errors and medication safety issues were the most frequent risks patients faced, accounting for 47 percent and 27 percent of mistakes, respectively.

- "Errors that occur during diagnostic testing in ambulatory care settings can have potentially devastating consequences for patients. Although such errors occur in all care settings, they are especially prevalent in ambulatory care: AHRQ estimates that about 40% of primary care patient visits involve some sort of medical test (AHRQ 'Improving'), and a Coverys analysis of 10,618 medical professional liability claims closed between 2013 and 2017 found that diagnosis-related errors accounted for approximately 33% of claims and 47% of indemnity payments."[217]

Same-Day Surgery in the U.S.: Findings of Two Inaugural Leapfrog Surveys, Leapfrog Group, 2019.

Data submitted by 1,141 hospital and 321 ambulatory outpatient surgery centers across the nation in 2019 revealed that:

- "More than 1 in 3 outpatient surgery centers employ doctors who are not board certified in their respective medical specialty…."

- "[N]early 30% of providers who provide anesthesia at doctor-owned centers are not board certified…."[218]

"Lax Oversight Leaves Surgery Center Regulators and Patients in The Dark," *Kaiser Health News/USA TODAY Network*, August 9, 2018.

"A Kaiser Health News and USA Today Network investigation found that surgery centers operate under such an uneven mix of rules across U.S. states that fatalities or serious injuries can result in no warning to government officials, much less to potential patients. The gaps in oversight enable centers hit with federal regulators' toughest sanctions to keep operating, according to interviews, a review of hundreds of pages of court filings and government records obtained under open records laws. No rule stops a doctor exiled by a hospital for misconduct from opening a surgery center down the street."[219]

"As surgery centers boom, patients are paying with their lives," *Kaiser Health News/USA TODAY Network*, March 2, 2018.

- "An investigation by Kaiser Health News and the USA TODAY Network has discovered that more than 260 patients have died since 2013 after in-and-out

procedures at surgery centers across the country. Dozens – some as young as 2 – have perished after routine operations, such as colonoscopies and tonsillectomies."

- "Kaiser Health News and the USA TODAY Network found more than a dozen cases where the absence of trained staff or emergency equipment appears to have put patients in peril."

- "Doctors in surgery centers may excel at the procedures they perform most often. But the centers aren't always prepared and sometimes struggle in a crisis, according to a review of Medicare records and more than 70 lawsuits."[220]

"Analysis of Closed Claims Data in Ambulatory Surgical Centers," Beth Israel Deaconess Medical Center Resident Joseph Foley et al., 2017.

- "Between 2007 and 2014, a total of 944 anesthesiology claims and lawsuits were filed. Of that total, 290 (30.7%) arose from events in ASCs [Ambulatory Surgical Centers]."[221]

- "High-severity claims made up 19 percent of all ASC-related claims. About half of those high-severity claims involved patient deaths."[222]

- "The most common allegation – comprising 26% of all claims – was intubation-related damage to the teeth, followed by improper performance of an anesthetic procedure."[223]

- "The next most common claim was for improper management of a patient under anesthesia, which comprised 20% of all ASC-related claims...."[224]

Community Health Centers.

"When Malpractice Occurs at Community Health Centers, Taxpayers Pay," *Kaiser Health News*, November 28, 2022.

- "485 payouts [were] made nationwide involving community health centers from 2018 through 2021. The settlements and judgments totaled $410 million paid to the patients or their families, according to federal data released to KHN through a public records request."

- "From 2018 through 2021, the median payment for malpractice settlements or judgments involving health centers was $225,000, according to the data from the Health Resources and Services Administration, which oversees the community health centers. In 68 of the 485 payouts, the total was at least $1 million."

- "Many of the lawsuits against health centers involved allegations of misdiagnosis or dental errors. Most large awards were for birth injuries or cases involving children."[225]

Concomitant Procedures.

"Sex-Based Differences in Concomitant Tricuspid Repair During Degenerative Mitral Surgery," and "Evaluation of sex differences in the receipt of concomitant atrial fibrillation procedures during nonmitral cardiac surgery," University of Michigan Health Cardiac Surgery Chair and Frankel Cardiovascular Center Director Gorav Ailawadi et al., 2024.

"When operating on the heart, surgeons may find another issue in the patient. Depending on what they see, the surgical team may address on the secondary condition during the same operation. These are sometimes called concomitant procedures. However, two studies led by Michigan Medicine find that female patients who undergo heart surgery are less likely to have secondary ailments corrected during a procedure – despite guidelines that indicate they should."[226]

Concurrent Surgeries.

"Association of Overlapping Surgery with Perioperative Outcomes," Stanford University Medical School Anesthesiology, Perioperative and Pain Medicine Assistant Professor Eric Sun et al., 2019.

As explained by *NPR*'s *Shots Blog*, "The practice of double-booking the lead surgeon's time seemed to put [high-risk] patients" (*i.e.*, older patients, those with pre-existing medical conditions and those undergoing coronary artery bypass graft surgery) "at significantly higher risk of post-op complications, such as infections, pneumonia, heart attack or death."[227]

"Concurrent surgeries come under new scrutiny," *Boston Globe*, December 20, 2015.

- "A Globe survey of 47 hospitals nationwide found that it is common for surgeons to start a second operation before the first is complete, often after the surgeries were deliberately scheduled to overlap briefly. However, some surgeons have operations that run simultaneously for longer periods. And few hospitals call on doctors to explicitly tell patients when their operations are double-booked."

- Some "major hospitals either have no written concurrent surgery policy or declined to discuss the topic altogether. More than a dozen institutions, including Stanford Health Care, New York-Presbyterian Hospital, and the University of Pittsburgh Medical Center, refused to answer any questions."

- "Hospitals are fairly consistent on one thing: not requiring surgeons to explicitly tell patients when they will be caring for a second patient at the same time."[228]

COVID-Era Injuries.

See also, PART 5: PATIENT SAFETY ("Nursing Homes/Long-Term Care Facilities/Skilled Nursing Units").

"COVID-19 Pandemic Increases in Nursing-Sensitive Quality Indicators," University of Pennsylvania Nursing School Gerontology, Nursing and Sociology Professor and Center for Health Outcomes and Policy Research Associate Director Eileen T. Lake et al., 2024.

An examination of National Database of Nursing Quality Indicators data from 2019-2022 revealed that rates of falls, central line-associated bloodstream infections, catheter-associated urinary tract infections, hospital-acquired pressure injuries and ventilator-associated events "all increased significantly during the pandemic. While some of these rates have begun to decline, they have not yet returned to pre-pandemic levels. When a patient falls, develops a pressure injury, or suffers a hospital-acquired infection, these adverse events delay the patient's ability to go home, to be comfortable, and to heal."[229]

"The impact of coronavirus disease 2019 (COVID-19) on healthcare-associated infections in 2020: A summary of data reported to the National Healthcare Safety Network," National Healthcare Safety Network, Centers for Disease Control and Prevention, 2021.

Data from the National Healthcare Safety Network, the nation's largest health care-associated infection surveillance system, revealed the following:

- "Compared with 2019, the study uncovered major increases in four [hospital acquired infections] HAIs in 2020 – [central line-associated bloodstream infections] CLABSIs, catheter-associated urinary tract infections (CAUTIs), ventilator-associated events (VAEs) and MRSA bacteremia. The largest increases occurred in CLABSIs, which were around 46% to 47% higher in the third and fourth quarters of 2020 compared with 2019."

- "According to the study, there also were dramatic increases in the frequency and duration of ventilator use and rates of VAEs, which rose by around 45% in the fourth quarter of 2020 compared with 2019. The Society for Healthcare Epidemiology of America noted in a press release that the sharp increases in [standardized infection ratios] SIRs indicate that the increase in infections was not simply a reflection of more devices being used."

- "CAUTIs increased by around 19% in the fourth quarter in 2020 compared with 2019, and MRSA rates were 22% to 34% higher in the third and fourth quarters than the previous year."[230]

Doctors' Work Hours.

"Impact of work schedules of senior resident physicians on patient and resident physician safety: nationwide, prospective cohort study," Harvard Medical School Medicine Assistant Professor and Brigham and Women's Hospital Associate Physiologist Laura K. Barger et al., 2023.

- "Working more than 48 hours per week was associated with an increased risk of self-reported medical errors, preventable adverse events, and fatal preventable adverse events…."

- "Working between 60 and 70 hours per week was associated with a more than twice the risk of a medical error" and "almost three times the risk of preventable adverse events…and fatal preventable adverse events…."

- "Working one or more shifts of extended duration in a month while averaging no more than 80 weekly work hours was associated with an 84% increased risk of medical errors," "a 51% increased risk of preventable adverse events" and "an 85% increased risk of fatal preventable adverse events…."[231]

Documentation Problems.

For the Record: The Effect of Documentation on Defensibility and Patient Safety, Candello, 2024.

Analysis of over 13,000 cases closed between 2014-2023 involved documentation failures. According to the study, "Documentation failures are common," "more than double the odds of a case closing with an indemnity payment" and "often coincide with high-severity injury or death."[232]

Do Not Resuscitate (DNR) Orders.

DNR Orders Can Lead to Worse Care & Increase Death Rates, E7 Health, 2021.

Analysis of 10 peer-reviewed studies found that the presence of DNR orders is "connected to elevated death rates, poorer medical care, and negative health outcomes."[233] More specifically:[234]

- "**DNR doubled the death rate for surgical patients:** A Harvard Medical School study of patients undergoing elective procedures found that the presence of a DNR increased death rates despite no difference in disease rates. About 13 percent of

patients with DNR orders in place died within the first 30 days after surgery compared to just under 6 percent for those without DNR orders, while DNR patients who survived had lower rates of most postoperative complications, including pneumonia, surgical site infection, and kidney failure."

- "Death rates increased by 150 percent for DNR patients who had emergency vascular surgery: Those who had a DNR in place were more likely to experience graft failure (about nine percent vs. about two percent), while 35 percent died within 30 days of surgery compared to 14 percent without a DNR."

- "Almost half of stroke victims who were designated DNR within the first 24 hours died in the hospital."

- "Patients with DNR orders were seven percentage points less likely to have blood cultures drawn, 12 percentage points less likely to have a central IV line placed, and 12 percentage points less likely to receive a blood transfusion."

- Another study on internal medicine residents "found that resident physicians were less likely to provide aggressive treatment to DNR patients like dialysis, surgical consultation, or transfer to intensive care despite not having specific guidance from patients or their family members."

Emergency Rooms and Boarding.

See also, PART 1: MEDICAL MALPRACTICE LITIGATION; PART 2: MEDICAL MALPRACTICE, HEALTH CARE COSTS AND "DEFENSIVE MEDICINE"; PART 5: PATIENT SAFETY ("Diagnostic Errors are the Most Common and Costly Errors," Care Transitions," "Children").

The hospital location with the highest proportion of negligent adverse events (52.6 percent) is the emergency department,[235] where people without health insurance often go for primary care.

"State and National Estimates of the Cost of Emergency Department Pediatric Readiness and Lives Saved," Oregon Health and Science University Emergency Medicine Professor Craig D. Newgard et al., 2024.

- "More than 80 percent of emergency departments in United States hospitals are not fully prepared for pediatric cases…despite the fact that children make up about 20 percent of visits each year." As a result, thousands of children die after E.R. visits each year.

- "[I]f every emergency department in the United States had the core features of 'pediatric readiness,'" one in four child deaths after E.R. visits could be prevented.[236]

Emergency Boarding Crisis Reflected in Medical Malpractice Data, Candello, 2024.

- There's an "ongoing crisis of emergency department (ED) boarding, where admitted patients are boarded and treated in the ED due to a shortage of inpatient beds. The lack of available beds was a prominent threat to patient safety long before the COVID-19 pandemic, but as The American College of Emergency Physicians remarked in 2023, '*Boarding has become its own public health emergency*.'"

- "The necessity to board patients in the ED can contribute to delayed and missed care, medication errors, compromised patient privacy, higher morbidity and in-hospital mortality, longer length of hospital stays, and poor patient satisfaction. ED boarding also affects other patients, increasing the median length of stay for all ED patients by over 10 minutes for each boarded patient. Moreover, ED boarding, wait time, and length of stay are all associated with increased odds of a patient safety event occurring."[237]

"Stranded in the ED, Seniors Await Hospital Care and Suffer Avoidable Harm," *KFF Health News*, May 7, 2024.

- "Physicians who staff emergency rooms say this problem, known as ED boarding, is as bad as it's ever been – even worse than during the first years of the COVID-19 pandemic, when hospitals filled with desperately ill patients."

- "While boarding can happen to all ED patients, adults 65 and older, who account for nearly 20% of ED visits, are especially vulnerable during long waits for care. Also, seniors may encounter boarding more often than other patients."

- "The impact of long ED waits on seniors who are frail, with multiple medical issues, is especially serious. Confined to stretchers, gurneys, or even hard chairs, often without dependable aid from nurses, they're at risk of losing strength, forgoing essential medications, and experiencing complications such as delirium…. When these patients finally secure a hospital bed, their stays are longer and medical complications more common. And new research finds that the risk of dying in the hospital is significantly higher for older adults when they stay in EDs overnight, as is the risk of adverse events such as falls, infections, bleeding, heart attacks, strokes, and bedsores."[238]

"Doctors Are Disappearing From Emergency Rooms as Hospitals Look to Cut Costs," *Nashville Public Radio*, February 13, 2023.

- The "staffing strategy [of having fewer doctors] has permeated hospitals, and particularly emergency rooms, that seek to reduce their top expense: physician labor. While diagnosing and treating patients was once their domain, doctors are increasingly being replaced by nurse practitioners and physician assistants,

collectively known as 'midlevel practitioners,' who can perform many of the same duties and generate much of the same revenue for less than half of the pay."

- "Critics of this strategy say the quest to save money results in treatment meted out by someone with far less training than a physician, leaving patients vulnerable to misdiagnoses, higher medical bills, and inadequate care. And these fears are bolstered by evidence that suggests dropping doctors from ERs may not be good for patients." One study "found that ER patients treated by a nurse practitioner were 20% more likely to be readmitted to the hospital for a preventable reason within 30 days…."[239]

"ER Inspector," *ProPublica*, 2019.

Researchers calculated the percentage of hospitals in each state that "have been cited for at least one ER-violation, as identified during the investigation of a complaint, since 2015."[240] These violations include "not properly assessing and treating patients, inadequate medical and nursing staff and not following ER policies and procedures."[241] Among the states with 30 percent or more of its hospitals cited for one or more violations: New York (53 percent), North Carolina (38 percent), Maryland (35 percent), Oregon (35 percent), Missouri (31 percent) and Pennsylvania (30 percent).[242]

"Deprived of Care: When ERs Break the Law," *WebMD/Georgia Health News*, November 29, 2018.

- Though the federal Emergency Medical Treatment and Labor Act (EMTALA) – which requires emergency departments to treat emergency patients regardless of ability to pay – "has been on the books for more than 30 years, hospitals are still violating it hundreds of times a year, sometimes with devastating results for patients."

- "WebMD and Georgia Health News analyzed 10 years of EMTALA violations by hospitals around the United States from March 2008 to March 2018. The records, obtained under a Freedom of Information Act request, show cases where complaints were substantiated by investigators for the federal Centers for Medicare and Medicaid Services, meaning the hospital was found to be at fault." Their investigation found:

    - "More than 4,300 violations from 1,682 hospitals in total over 10 years."

    - "Violators represent about a third of the nation's approximately 5,500 hospitals, according to statistics from the American Hospital Association."

    - "Failure to do a thorough medical screening exam was the most common violation committed by hospitals, accounting for more than 1,300 citations, nearly twice as many as the second most common violation: transferring patients inappropriately."

- "In a deeper analysis of investigation reports from January 2016 to March 2018, at least 34 patients died during that period after emergency departments violated the law."[243]

"Do EPs change their clinical behaviour in the hallway or when a companion is present? A cross-sectional survey," Brigham and Women's Hospital Emergency Physician Hanni Stoklosa et al, 2018.

- "Patients are more likely to be misdiagnosed or experience treatment delays when emergency rooms are so crowded that they receive care in a hallway," according to a 2015 survey of emergency room physicians.

- "Overall, nine in 10 doctors surveyed said they changed or shortened how they took patient medical histories when another person was present, and more than half of the physicians also altered how they did physical exams."[244]

"Early death after discharge from emergency departments: analysis of national US insurance claims data," Harvard Medical School Health Care Policy Assistant Professor and Brigham and Women's Hospital Emergency Medicine Assistant Professor Ziad Obermeyer et al., 2017.

- "Every year, a substantial number of Medicare beneficiaries die soon after discharge from emergency departments, despite no diagnosis of a life limiting illnesses recorded in their claims."

- "In this national analysis, we found that over 10,000 Medicare beneficiaries each year died within seven days after being discharged from emergency departments, despite mean age of 69 and no obvious life limiting illnesses."

- "For context, these deaths accounted for 1.7% of all non-hospice deaths in the Medicare fee for service population annually. Variability in mortality rates across hospitals was striking: hospitals with low patient volumes and lower admission rates had the highest rates of early death, and small increases in admission rates were linked to large decreases in risk – despite the fact that hospitals with low admission rates served emergency department populations with lower overall near term mortality."[245]

High-Risk Surgeries.

Safety in Numbers: Hospital Performance on Leapfrog's Surgical Volume Standard Based on Results of the 2019 Leapfrog Hospital Survey, Leapfrog Group, 2020.

The Leapfrog Group examined 2019 survey responses from over 2,100 hospitals nationwide, representing 70% of U.S. hospital beds – looking specifically at "whether hospitals are performing a sufficient volume of high-risk surgeries to safely do so, and whether the hospital grants privileges only to surgeons meeting the Leapfrog minimum volume standard. The report also records whether hospitals actively monitor to assure that each surgery is necessary."[246] Among the study's findings:

- "The majority of hospitals are still electively performing high-risk procedures without the adequate, ongoing experience to do so."

- "'The bad news is the vast majority of hospitals performing these high-risk procedures are not meeting clear volume standards for safety. This is very disturbing, as a mountain of studies show us that patient risk of complications or death is dramatically higher in low-volume operating rooms….'"

- "Of the eight high-risk procedures assessed in the report, esophageal resection for cancer and pancreatic resection for cancer are the two procedures where the fewest hospitals met the volume standard for patient safety – less than 3% and 8% respectively."[247]

Home Health Agencies.

"Hospital discharge: It's one of the most dangerous periods for patients," *Kaiser Health News*, May 2, 2016.

- A *Kaiser Health News* analysis of federal inspection records showed that medication errors are frequently missed by home health agencies. More specifically, between January 2010 and July 2015, "inspectors identified 3,016 home health agencies – nearly a quarter of all those examined by Medicare – that had inadequately reviewed or tracked medications for new patients. In some cases, nurses failed to realize that patients were taking potentially dangerous combinations of drugs, risking abnormal heart rhythms, bleeding, kidney damage and seizures."

- In addition, "[o]ver the first half of this decade, 1,591 agencies – one in eight – had a defect inspectors considered so substantial that it warranted the agencies' removal from the Medicare program unless the lapses were remedied."[248]

Hospice Care.

See also, PART 5: PATIENT SAFETY ("Private Equity Ownership").

Association of Hospice Profit Status With Family Caregivers' Reported Care Experiences, RAND Corporation, 2023.

Analyzing "responses to more than 650,000 surveys completed between the second quarter of 2017 and the first quarter of 2019" by "family caregivers of patients treated by more than 3,100 hospices nationally, RAND researchers found that family members reported worse care experiences on average from for-profit hospices across all of the domains assessed, including help for pain and other symptoms and getting timely care."[249]

"Endgame: How the Visionary Hospice Movement Became a For-Profit Hustle," *New Yorker/ProPublica*, November 28, 2022.

- "Once a hospice is up and running, oversight is scarce. Regulations require surveyors to inspect hospice operations once every three years, even though complaints about quality of care are widespread."

- "Because patients who enroll in the service forgo curative care, hospice may harm patients who aren't actually dying. …[U]nwitting recruits were denied kidney dialysis, mammograms, coverage for lifesaving medications or a place on the waiting list for a liver transplant."

- "Some providers capitalize on the fact that most hospice care takes place behind closed doors, and that those who might protest poor treatment are often too sick or stressed to do so."[250]

Hospice Deficiencies Pose Risks to Medicare Beneficiaries, Office of Inspector General, U.S. Department of Health and Human Services, 2019.

- "Nearly all hospices that provided care to Medicare beneficiaries were surveyed at least once from 2012 through 2016. Eighty-seven percent of these 4,563 hospices had a deficiency during this 5-year period, meaning that they failed to meet at least 1 requirement (condition-level or standard level) for participating in the Medicare program. These requirements are intended to ensure the quality of care and services provided by hospices. Each year, 69 percent to 76 percent of surveyed hospices had at least one deficiency."

- "Twenty percent (903 of 4,563) of hospices surveyed from 2012 through 2016 had at least one serious deficiency – a condition-level deficiency – which means that the hospice's capacity to furnish adequate care was substantially limited, or the health and safety of beneficiaries were in jeopardy. The number of hospices with these deficiencies nearly quadrupled from 2012 to 2015 – going from 74 to 292 – then decreased somewhat in 2016."[251]

"'No One is Coming:' Investigation Reveals Hospices Abandon Patients at Death's Door," *TIME/Kaiser Health News*, October 25, 2017.

The nation's 4,000-plus hospice agencies "pledge to be on call around the clock to tend to a dying person's physical, emotional and spiritual needs. It's a thriving business that served about 1.4 million Medicare patients in the U.S. in 2015, including over a third of Americans who died that year, according to industry and government figures.

"Yet as the industry has grown, the hospice care people expect – and sign up for – sometimes disappears when they need it most. Families across the country, from Appalachia to Alaska, have called for help in times of crisis and been met with delays, no-shows and unanswered calls, a Kaiser Health News investigation published in cooperation with TIME shows.

"The investigation analyzed 20,000 government inspection records, revealing that missed visits and neglect are common for patients dying at home. Families or caregivers have filed over 3,200 complaints with state officials in the past five years. Those complaints led government inspectors to find problems in 759 hospices, with more than half cited for missing visits or other services they had promised to provide at the end of life.

"Only in rare cases were hospices punished for providing poor care, the investigation showed."[252]

Infections.

Patient Safety Component Manual, National Healthcare Safety Network, Centers for Disease Control and Prevention, 2024.

Central line-associated bloodstream infections (CLABSIs). "[A]n estimated 30,100 central line-associated bloodstream infections (CLABSI) still occur in intensive care units and wards of U.S. acute care facilities each year. CLABSIs are serious infections typically causing a prolongation of hospital stay, increased cost, and risk of mortality."

Urinary tract infections (UTIs). UTIs "are the fifth most common type of healthcare-associated infection, with an estimated 62,700 UTIs in acute care hospitals in 2015. UTIs additionally account for more than 9.5% of infections reported by acute care hospitals. …It has been estimated that each year, more than 13,000 deaths are associated with UTIs."

Surgical site infections (SSIs). "SSIs remain a substantial cause of morbidity, prolonged hospitalization, and mortality. It is reported, SSI accounts for 20% of all [healthcare-associated infections] HAIs and is associated to a 2-to 11-fold increase in the risk of mortality with 75% of SSI-associated deaths directly attributable to the SSI. SSI is the most costly HAI type with an estimated annual cost of $3.3 billion, and extends hospital length of stay by 9.7 days, with cost of hospitalization increased by more than $20,000 per admission."[253]

Intensive Care Units (ICUs).

See also, PART 5: PATIENT SAFETY ("Diagnostic Errors are the Most Common and Costly Errors," "Care Transitions").

"Prospective evaluation of medication-related clinical decision support over-rides in the intensive care unit," Brigham and Women's Hospital Outcomes Research and Pharmacy Informatics Fellow Adrian Wong et al., 2018.

- Clinical decision support (CDS) alerts in electronic medical records serve to "remind clinicians about everything from a patient's drug allergies, to possible drug interactions, to dosing guidelines, to lab testing guidance. Clinicians can either follow the alerts' recommendations or override or ignore them."[254]

- Researchers studying medication-related CDS alert over-rides among adults admitted to Brigham and Women's ICUs between July 2016 and April 2017 found that nearly 20 percent of over-rides were inappropriate. Moreover, "inappropriate over-rides were six times as likely to be associated with potential and definite [adverse drug events] ADEs, compared with appropriate over-rides."[255]

Lower-Volume Hospitals.

"Obstetric Outcomes by Hospital Volume of Operative Vaginal Delivery," Oregon Health and Science University Obstetrics and Gynecology Professor Aaron B. Caughey et al., 2025.

"Hospitals doing fewer operative vaginal deliveries (OVDs) had higher rates of adverse perinatal outcomes for these cases than higher volume centers did, according to a population-based retrospective cohort study from California" that included over 306,800 newborns delivered via OVD."[256]

Safety in Numbers: The Leapfrog Group's Report on High-Risk Surgeries Performed at American Hospitals, Leapfrog Group, 2019.

The Leapfrog Group examined 2018 survey responses from over 2,000 hospitals nationwide – looking specifically at "eight high-risk procedures to determine which hospitals and surgeons perform enough of them to minimize the risk of patient harm or death, and whether hospitals actively monitor to assure that each surgery is necessary" – and found "significant variation between urban and rural hospitals, with urban hospitals outperforming rural hospitals across all eight high-risk procedures. For five of the eight procedures, no rural hospitals are fully meeting Leapfrog's volume standard." Said Leapfrog president and CEO Leah Binder, "'No hospital and no surgeon should do only one or two of these procedures a year ever. The evidence is abundant: that's not safe for patients….'"[257]

"Safety in Numbers," *U.S. News & World Report*, June 21, 2017.

- "The analysis of four years of data from hospitals across the country indicates that 26 percent of deaths – more than 1 out of every 4 – that occur following surgery for the most severe heart defects could be prevented by having the operation performed at hospitals where surgical teams do the greatest numbers of procedures."

- "In 4,000 of the most complex procedures performed, U.S. News found that 104 of 395 deaths could have been prevented if the patients – most of whom in such surgeries are children – had their operations in high-volume centers that treat 250 or more patients needing congenital heart surgery in a year. Nine hospitals studied, the data show, performed an average of just two or fewer of the riskiest and most challenging procedures per year."[258]

Multiple Step Medical Procedures.

"Analysis of Physicians' Probability Estimates of a Medical Outcome Based on a Sequence of Events," Ohio State University Emeritus Psychology Professor and Berlin, Germany Harding Center for Risk Literacy Associate Hal R. Arkes, University of Utah Critical Care Pulmonologist Scott K. Aberegg and Travelers Insurance Forensic Specialist Kevin A. Arpin, 2022.

- "[P]hysicians tend to have unrealistic expectations of multiple step medical procedures," where "inflated estimates of success could adversely influence treatment decisions and lead to unintended harm to patients."

- The study "highlights a serious logical disconnect among physicians who fail to consider that each step in the process has its own risks that can diminish the chances of success for the desired medical outcome."[259]

Neonatal Intensive Care Unit (NICU).

See also, PART 1: MEDICAL MALPRACTICE LITIGATION.

"Risk of Wrong-Patient Orders Among Multiple vs Singleton Births in the Neonatal Intensive Care Units of 2 Integrated Health Care Systems," Columbia University Medicine Assistant Professor and New York Presbyterian/Columbia University Irving Medical Center Chief Patient Safety Officer Jason Adelman et al., 2019.

Researchers analyzed more than 1.5 million electronic orders placed for 10,819 infants in six NICUs within two NYC hospital systems and found that:[260]

- "The risk of wrong-patient order errors was nearly doubled for [multiple-birth infants] compared with singletons."

- "The risk grew with increasing number of siblings receiving care in the NICU: An error occurred in one in seven sets of twins and in one of three sets of triplets and quadruplets."

- "The higher error rate was due to misidentification between siblings within sets of twins, triplets, or quadruplets."

- "'Our study suggests that the safeguards now commonly used to protect against medical errors in the NICU setting are not sufficient to prevent misidentification and medical errors among multiple-birth infants,'" said the lead study author.

"Use of Temporary Names for Newborns and Associated Risks," Montefiore Health System Patient Safety Officer and Hospital Medicine Assistant Professor Jason Adelman et al., 2015.

Researchers found that hospitals' practice of assigning temporary, non-distinct first names such as Babyboy or Babygirl to newborns resulted in a high incidence of wrong-patient errors in the NICU. According to the study, which was "designed to measure wrong-patient electronic orders, there are other types of misidentification errors in NICUs that may result from the use of nondistinct first names, such as reading imaging tests or pathology specimens for the wrong patient or administering blood products to the wrong patient. One particularly concerning wrong-patient error unique to NICUs and hospital nurseries is feeding a mother's expressed breast milk to the wrong infant."[261]

Non-Teaching Hospitals.

"Association Between Teaching Status and Mortality in US Hospitals," Harvard T.H. Chan School of Public Health Instructor and Beth Israel Deaconess Medical Center Emergency Medicine Physician Laura G. Burke et al., 2017.

Researchers analyzed 21 million hospitalizations of Medicare beneficiaries from 2012 through 2014 and found that "[o]lder adults treated at major teaching facilities are less likely to die in the weeks and months following their discharge than patients admitted to 'non-teaching' or community hospitals…." As the study's lead author told *Healthday*, "'[F]or every 84 patients treated at a major teaching hospital that otherwise would have gone to a non-teaching hospital, one fewer patient dies,'" or put another way, "If death rates at non-teaching hospitals were similar to major teaching facilities, there would be roughly 58,000 fewer deaths per year among these patients…."[262]

Nursing Homes/Long-Term Care Facilities/Skilled Nursing Units.

See also, PART 5: PATIENT SAFETY ("Private Equity Ownership").

"COVID-19 Nursing Home Data," Centers for Medicare and Medicaid Services, 2025 and "COVID-19 Nursing Home Resident and Staff Deaths: AARP Nursing Home Dashboard," 2024.

According to the most recent data, more than 2.28 million nursing home residents had contracted COVID-19 and over 176,300 residents had died from COVID-19.[263]

Lessons Learned During the Pandemic Can Help Improve Care in Nursing Homes, Office of Inspector General, U.S. Department of Health and Human Services, 2024.

"Many Americans prefer to believe the Covid pandemic is a thing of the past. But for the nation's nursing homes, the effects have yet to fully fade, with staffing shortages and employee burnout still at crisis levels and many facilities struggling to stay afloat…." According to the report, "the flawed infection-control procedures that contributed to the 170,000 deaths at nursing homes during the pandemic were still inadequate at many facilities."[264]

"Overbilling and Killing? An Examination of the Skilled Nursing Industry," University of Texas at Austin Finance Professor John M. Griffin and University of Rochester Finance Assistant Professor Alex Priest, 2024.

- "Millions of residents who have suffered from negligence at nursing homes across the country…can trace worsening health outcomes [including death] to fraud committed by the operators of those facilities," according to an examination of seven years of Centers for Medicare and Medicaid Services data.

- "Using information pulled from more than 7 million patients across 14 million nursing home stays, researchers found facilities that were able to extract more funding from Medicaid were not providing better care for patients. They performed worse on inspection ratings and verified consumer reviews and had lower staff ratios."

- "When researchers tracked hospital admissions, they found a high occurrence of patients who were listed as having neither preventable conditions [of bed sores or urinary tract infections] in the nursing home – but show up at the hospital with one or both."[265]

More Than a Thousand Nursing Homes Reached Infection Rates of 75 Percent or More in the First Year of the COVID-19 Pandemic; Better Protections Are Needed for Future Emergencies, Office of Inspector General, U.S. Department of Health and Human Services, 2023.

- "Nursing homes had a surge of COVID-19 cases during the spring of 2020 and a greater surge during the fall, well after they were known to be vulnerable."

- "More than 1,300 nursing homes had extremely high infection rates – 75 percent or more – during these surges. For-profit nursing homes made up a disproportionate percentage of these homes."

- "Overall, for-profit nursing homes made up 71 percent of all nursing homes, yet they made up 77 percent of the nursing homes with extremely high infection rates during both the first and second surges."[266]

***The National Imperative to Improve Nursing Home Quality: Honoring Our Commitment to Residents, Families, and Staff*, National Academies of Science, Engineering and Medicine, 2022.**

"The COVID-19 pandemic 'lifted the veil,' revealing and amplifying long-existing shortcomings in nursing home care such as inadequate staffing levels, poor infection control, failures in oversight and regulation, and deficiencies that result in actual patient harm. …The pandemic's enormous toll on nursing home residents and staff drew renewed attention to the long-standing weaknesses that continue to impede the provision of high-quality nursing home care."[267]

"How Nursing Homes' Worst Offenses Are Hidden From the Public," *New York Times*, December 10, 2021.

"In Arizona, a nursing home resident was sexually assaulted in the dining room. In Minnesota, a woman caught Covid-19 after workers moved a coughing resident into her room. And in Texas, a woman with dementia was found in her nursing home's parking lot, lying in a pool of blood.

"State inspectors determined that all three homes had endangered residents and violated federal regulations. Yet the federal government didn't report the incidents to the public or factor them into its influential ratings system. The homes kept their glowing grades.

"A New York Times investigation found that at least 2,700 similarly dangerous incidents were also not factored into the rating system run by the federal Centers for Medicare and Medicaid Services, or C.M.S., which is designed to give people reliable information to evaluate the safety and quality of thousands of nursing homes.[268]

***Infection Control Deficiencies Were Widespread and Persistent in Nursing Homes Prior to COVID-19 Pandemic*, U.S. Government Accountability Office, 2020.**

GAO "reviewed [Centers for Medicare and Medicaid Services] guidance and analyzed data on nursing home deficiencies cited by surveyors in all 50 states and Washington, D.C., from 2013 through 2017 provided by CMS" and found the following:[269]

- "[I]nfection prevention and control deficiencies were the most common type of deficiency cited in surveyed nursing homes, with most nursing homes having an

infection prevention and control deficiency cited in one or more years from 2013 through 2017 (13,299 nursing homes, or 82 percent of all surveyed homes). Infection prevention and control deficiencies cited by surveyors can include situations where nursing home staff did not regularly use proper hand hygiene or failed to implement preventive measures during an infectious disease outbreak, such as isolating sick residents and using masks and other personal protective equipment to control the spread of infection."

- "In each individual year from 2013 through 2017, the percent of surveyed nursing homes with an infection prevention and control deficiency ranged from 39 percent to 41 percent."

- "[N]ursing homes owned by for-profit organizations, which comprised about 68 percent of all surveyed nursing homes, accounted for about 72 percent of nursing homes that had infection prevention and control deficiencies cited in multiple years, but nursing homes owned by for-profit organizations comprised only about 61 percent of nursing homes with no infection prevention and control deficiencies cited."

"Falls prevention is everyone's responsibility – from care team to C-suite, speaker says," *McKnight's Senior Living*, October 16, 2019.

A representative from medical malpractice insurer Constellation shared the following data with attendees at the American Health Care Association/National Center for Assisted Living's 70th Annual Convention and Expo:

- "Falls continue to be a big issue in long-term care, accounting for 42% of medical malpractice claims recently examined by Constellation."

- "Errors in clinical judgment were overwhelmingly associated with the claims, cited in 92% of them."

- "Policies not being followed or not existing (47%) and communication breakdowns (36%) among staff members or between the staff and the resident/family members also were factors."[270]

"Off-Service" Placement.

"Capacity Pooling in Hospitals: The Hidden Consequences of Off-Service Placement," University of Pennsylvania Wharton School Operations, Information and Decisions Assistant Professor Hummy Song et al., 2019.

- "[A]pproximately 1 in 5 patients is placed 'off service,' or in a hospital ward designated for a different specialty of care than what they require."

- "Off-service patient placement leads to a hospital stay that is 23% longer and a higher chance of having to be readmitted within 30 days after initial discharge."

- "In this study, off-service placements contribute to nearly 4,000 additional patient-days per year in the studied hospital. This makes hospitals more crowded and patients worse off."[271]

Patient Misidentification.

See also, PART 5: PATIENT SAFETY ("Care Transitions," "Neonatal Intensive Care Unit (NICU)").

Patient Identification, ECRI, 2016.

- ECRI Institute Patient Safety Organization "reviewed more than 7,600 wrong-patient events occurring over a 32-month period that were submitted by 181 healthcare organizations. The events are voluntarily submitted and may represent only a small percentage of all wrong-patient events occurring at the organizations."

- "Most patient identification mistakes are caught before care is provided, but the events in this report illustrate that others do reach the patient, sometimes with potentially fatal consequences. About 9% of the events led to temporary or permanent harm or even death."

- "In addition to their potential to cause serious harm, patient identification errors are particularly troublesome for a number of other reasons, including: Most, if not all, wrong-patient errors are preventable."[272]

2016 National Patient Misidentification Report, Ponemon Institute, 2016.

- Sixty-four percent of respondents said that patient misidentification errors happen "very frequently or all the time" in a typical healthcare facility, which means that the industry standard reporting of an 8-10% patient misidentification rate "likely underrepresents the problem."[273]

- Eighty-six percent of respondents "have witnessed or know of a medical error that was the result of patient misidentification."[274]

Plastic Surgery.

"Women seeking discount plastic surgery paid with their lives at clinics opened by felons," *USA TODAY*, April 23, 2019.

"Nearly a dozen miles from the iconic beaches of South Florida, … four convicted felons ran facilities that became assembly lines for patients from across the country seeking the

latest body sculpting procedures at discount prices. And at those businesses, at least 13 women have died after surgeries. Nearly a dozen others were hospitalized with critical injuries, including punctured internal organs."[275]

Plastic Surgery Closed Claims Study, Doctors Company, 2016.

An analysis of 1,438 claims against plastic surgeons closed from January 2007 through June 2015 found that "technical performance" (*e.g.,* "performing a procedure on an incorrect body site, misidentifying an anatomical structure, and using poor technique") contributed to patient harm in 42 percent of claims. Among the most common injuries suffered: emotional trauma (35 percent), scarring (23 percent), cosmetic injury (14 percent), infection (12 percent), burns (6 percent), ongoing pain (6 percent), tissue necrosis (4 percent), nerve damage (4 percent) and death (3 percent).[276]

Primary Care Shortage Areas.

"Higher Rates Of Emergency Surgery, Serious Complications, And Readmissions In Primary Care Shortage Areas, 2015–19," University of Michigan Surgeon Sara L. Schaefer et al., 2024.

"In all, people living in areas with the most severe shortages of primary care providers have a much higher risk of having emergency surgery, rather than a scheduled operation, compared with people with the same condition who live in areas with less-dire primary care shortages. Those living in the areas with the lowest availability of primary care providers also have a higher chance of suffering complications after surgery, and needing to go back to the hospital after they've left it…."[277]

Private Equity Ownership.

See also, PART 2: MEDICAL MALPRACTICE, HEALTH CARE COSTS AND "DEFENSIVE MEDICINE"; PART 5: PATIENT SAFETY ("Hospice Care," "Nursing Homes/Long-Term Care Facilities/Skilled Nursing Units").

HHS Consolidation in Health Care Markets RFI Response, U.S. Department of Health and Human Services, January 15, 2025.

The U.S. Justice Department, Federal Trade Commission and Department of Health and Human Services "jointly launched a cross-government public inquiry into private-equity and other corporations' increasing control over health care"[278] and found the following:[279]

- Research shows that following PE acquisitions, physician practices, nursing homes, and other providers exhibit lower staffing levels. However, evidence also points to PE acquisitions inducing demand through increased patient volumes and increases in

unnecessary tests and procedures. This results in provider burnout and less patient-physician time."

- "Private equity acquisitions of nursing home and home and community-based services triggered many concerns about quality based on empirical research. PE entities were described as having an excessive focus on generating rapid financial returns and thus irresponsibly lowering costs by reducing quality of care.

- "There also was a common experience among physicians that PE-operated providers increased patient volumes and dangerously reduced time per patient after acquisition."

- "Many commentators criticized PE firms for pursuing aggressive staffing cuts and hiring inadequately credentialed staff. Many comments cited research about nursing home staffing cuts such as the finding of 'a decline in RN staffing with every progressive year of private equity ownership.'"

- "The American College of Emergency Physicians shared results from a questionnaire of its members: 53% of respondents indicated that their medical decision-making autonomy was curtailed following the merger or acquisition of their practice. They noted that there was now 'pressure to take shortcuts [and] give inappropriate and potentially harmful care' to meet profit-driven metrics, that patients 'are treated as numbers rather than individuals,' and that care is no longer patient-centered but 'metric-centered.'"

***Profits Over Patients: The Harmful Effects of Private Equity on the U.S. Health Care System*, U.S. Senate Budget Committee, 2025.**

- "The results of this bipartisan investigation – including the documents released publicly today for the first time – highlight significant concerns regarding the impact of PE ownership on the quality of care, patient safety, and financial stability at hospitals across the United States. …While not every PE firm operates in an identical fashion, the evidence highlights systemic issues with PE investment in health care, including underinvestment in critical hospital infrastructure, understaffing, and the pursuit of financial gains through leveraged buyouts and dividend extractions – often to the detriment of patients and hospital operations."

- "The consequences of this ownership model – reduced services, compromised patient care, and even complete hospital closures – potentially pose a threat to the nation's health care infrastructure, particularly in underserved and rural areas."[280]

"Changes in Patient Care Experience After Private Equity Acquisition of US Hospitals," Richard A. and Susan F. Smith Center for Outcomes Research Health Policy and Equity Research Associate Director and Harvard Medical School Medicine Associate Professor Rishi Wadhera et al., 2025.

- "Patient care experience worsened after private equity acquisition of hospitals. These findings raise concern about the implications of private equity acquisitions on patient care experience at US hospitals."[281]

- "[D]ifference in overall measures of patient care experience between hospitals acquired by private equity and control hospitals grew each subsequent year after acquisition, a change that reached 5 percentage points by year 3. 'It's quite striking that after private equity takes over a hospital, overall patient care experience scores worsen more than they did nationally during the COVID-19 pandemic,'" said one of the researchers.[282]

"Concerns Continue Over Private Equity's Reach Into Healthcare," *MedPage Today*, January 2, 2025.

"Robert McNamara, MD, chief medical officer of the American Academy of Emergency Medicine and a co-founder of Take Medicine Back, a group formed to reclaim medicine from corporate interests, argued that 'at its simplest, the private equity model is wealth extraction.' Private equity…pressure physicians to see more patients in less time, cut staff, and replace physicians with less costly non-physicians, he noted, in addition to raising costs for patients. …'Doctors swore an oath to put the patient first. Private equity doesn't do that.'"[283]

"Esophagectomy Trends and Postoperative Outcomes at Private Equity-Acquired Health Centers," University of Michigan General Surgery Resident Jonathan E. Williams et al., 2025.

- "Esophagectomy outcomes trended in the wrong direction at hospitals owned by private-equity companies, a review of more than 9,000 cases showed. Statistically significant differences existed for 30-day mortality, any complication, serious complications, and failure to rescue, all favoring non-equity hospitals."[284]

- "These findings suggest that patients who undergo esophagectomy at private equity acquired hospitals may be at risk for worse outcomes."[285]

Testimony of Former Centers for Medicare and Medicaid Services Administrator and Institute for Healthcare Improvement President Emeritus and Senior Fellow Donald M. Berwick before U.S. Senate Health, Education, Labor and Pensions Subcommittee, Hearing on "When Health Care Becomes Wealth Care: How Corporate Greed Puts Patient Care and Health Workers at Risk," April 3, 2024.

"Recent studies of private equity acquisitions of autism care programs show significant declines in staffing and increases in the use of 'cookie cutter' care, rather than customizing care to individual patients' need. The result is worse quality of care.… [A]necdotally, my email inbox is full of disturbing reports from physicians and other

clinicians about the changing circumstances of their practices as profit-seeking overtakes patient protection."[286]

Testimony of New England Medical Association President and Emergency Medicine Physician Ellana Stinson before U.S. Senate Health, Education, Labor and Pensions Subcommittee, Hearing on "When Health Care Becomes Wealth Care: How Corporate Greed Puts Patient Care and Health Workers at Risk," April 3, 2024.

"Practicing medicine in many PE led places is no longer about patient safety and quality, but about making medical decisions and judgment due corporate decision making with profit motives at the expense of patients. Forcing staff to see patients in the waiting room in order to have it appear wait times were being reduced and improving door to doc times, calling codes for sepsis and strokes in order to find innovative ways to make profits. Increasingly daunting metrics required of physicians and other staff to meet were nearly unattainable and unsafe in many instances, but very much expected."[287]

Letters from U.S. Senator Gary Peters (D-MI), Chairman of the Homeland Security and Governmental Affairs Committee, to Apollo Global Management, US Acute Care Solutions, Lifepoint Health, Blackstone, TeamHealth, KKR & Co. Inc. and Envision Regarding Private Equity-Run Emergency Departments and Impact on Patient Care, April 1, 2024.

"My staff have spoken with over 40 emergency medicine physicians across the country who have raised substantial concerns regarding patient safety, patient care, emergency department staffing, the corporate practice of medicine, restrictive contracting practices, physician clinical independence, unlawful retaliatory actions, improper billing, and anticompetitive practices at private equity-owned hospitals and private equity-owned contract management groups (commonly known as staffing companies). I am concerned by the risks these physicians have raised and their potential impact on patients and families…."[288]

"Changes in Hospital Adverse Events and Patient Outcomes Associated With Private Equity Acquisition," Massachusetts General Hospital Pulmonary and Critical Care Researcher and Physician Sneha Kannan, University of Chicago Public Health Sciences Assistant Professor Joseph Dov Bruch and Harvard Medical School Health Care Policy and Medicine Associate Professor Zirui Song, 2023.

- The study "found that, in the three years after a private equity fund bought a hospital, adverse events including surgical infections and bed sores rose by 25 percent among Medicare patients when compared with similar hospitals that were not bought by such investors."[289]

- "The researchers reported a nearly 38 percent increase in central line infections, a dangerous kind of infection that medical authorities say should never happen, and a 27 percent increase in falls by patients while staying in the hospital."[290]

- "Notably, surgical site infections doubled after acquisition (10.8 to 21.6 per 10,000 hospitalizations), whereas they dropped at non-acquired hospitals over the same span (17.5 to 12.6 per 10,000 hospitalizations). …This was 'particularly alarming because the number of surgical site infections increased even as private equity hospitals performed 8% fewer surgical procedures after acquisition,' the researchers wrote."[291]

- "The findings together 'suggested poorer quality of inpatient care,' wrote the researchers, and 'heighten concerns about the implications of private equity on healthcare delivery.'"[292]

"Senate Budget Committee Digs into Impact of Private Equity Ownership in America's Hospitals," Office of U.S. Senator Chuck Grassley, December 6, 2023.

- "Since coming under private equity ownership, many hospitals…have experienced significant staffing reductions and substandard health care, and have been stripped of valuable assets, including their real estate, leaving them saddled with debt."

- "'When it comes to our nation's hospitals, a business model that prioritizes profits over patient care and safety is unacceptable,' Ranking Member Grassley said."

- "'As private equity has moved into health care, we have become increasingly concerned about the associated negative outcomes for patients,' Chairman [Sheldon] Whitehouse said. 'From facility closures to compromised care, it's now a familiar story: private equity buys out a hospital, saddles it with debt, and then reduces operating costs by cutting services and staff – all while investors pocket millions. Before the dust settles, the private equity firm sells and leaves town, leaving communities to pick up the pieces.'"[293]

The Impact of Practice Acquisitions and Employment on Physician Experience and Care Delivery, NORC at the University of Chicago, 2023.

According to a survey of 1,000 physicians conducted from July 17-August 7, 2023:

- "Almost 60% of physicians who practice as employees of hospitals and other corporate entities," such as health systems, venture capital and private equity firms, health insurance companies and staffing agencies, "say that non-physician practice ownership results in a lower quality of patient care…."[294]

- "Among doctors who said corporate ownership made things worse, the majority (83%) said reduced autonomy in patient care decisions was one of the top negative impacts of ownership changes on patient care."[295]

Owner Incentives and Performance in Healthcare: Private Equity Investment in Nursing Homes, National Bureau of Economic Research, 2023.

> "PE ownership leads to lower-risk patients and increases mortality. After instrumenting for the patient-nursing home match, we recover a local average treatment effect on mortality of 11%. Declines in measures of patient well-being, nurse staffing, and compliance with care standards help to explain the mortality effect. Overall, we conclude that PE has nuanced effects, with adverse outcomes for a subset of patients. …In terms of policy implications, our results suggest that, in partial equilibrium, restricting PE transactions would save lives."[296]

"Association of Private Equity Acquisition of Physician Practices With Changes in Health Care Spending and Utilization," Harvard Medical School Health Care Policy and Medicine Associate Professor Zirui Song et al., 2022.

- "In general, private equity firms aim for annual returns exceeding 20% in a short investment period of 3 to 7 years. Although private equity acquisitions may bring technological and operational efficiencies into a practice, private equity's short-term financial incentives and ownership models may have negative outcomes on health care access, quality, or spending."

- The researchers examined changes in spending, utilization and practice patterns following private equity acquisitions of dermatology, gastroenterology and ophthalmology physician practices from 2016 to 2020 and found increases in patient volume that "may reflect overutilization of profitable services and/or unnecessary or low-value care, which could raise health care spending without commensurate patient benefits."[297]

"Does Private Equity Investment in Healthcare Benefit Patients? Evidence from Nursing Homes," Wharton School Health Care Management Assistant Professor Atul Gupta et al., 2021.

- Going to private equity-owned (PE) nursing homes "increases the short-term mortality of Medicare patients by 10%, implying 20,150 lives lost due to PE ownership over our twelve-year sample period. This is accompanied by declines in other measures of patient well-being, such as lower mobility, while taxpayer spending per patient episode increases by 11%. We observe operational changes that help to explain these effects, including declines in nursing staff and compliance with standards."

- "We use the observed age and gender distribution of Medicare decedents to estimate the corresponding implied loss in life-years – 160,000. Using a conventional value of a life-year from the literature, this estimate implies a mortality cost of about $21 billion in 2016 dollars."[298]

Rehabilitation Hospitals.

Adverse Events in Rehabilitation Hospitals: National Incidence Among Medicare Beneficiaries, Office of Inspector General, U.S. Department of Health and Human Services, 2016.

After reviewing a nationally representative sample of medical records of Medicare beneficiaries discharged from rehab hospitals in March 2012, OIG found the following:

- "An estimated 29 percent of Medicare beneficiaries experienced adverse or temporary harm events during their rehab hospital stays, resulting in temporary harm; prolonged stays or transfers to other hospitals; permanent harm; life-sustaining intervention; or death. This harm rate is in line with what we found in hospitals (27 percent) and in [skilled nursing facilities] (33 percent)."

- "Physician reviewers determined that 46 percent of these adverse and temporary harm events were clearly or likely preventable."

- "Nearly one-quarter of the patients who experienced adverse or temporary harm events were transferred to an acute-care hospital for treatment, with an estimated cost to Medicare of at least $7.7 million in one month, or at least $92 million in one year, assuming a constant rate of hospitalization throughout the year."[299]

Resident Handoff.

"Increased Mortality Associated with Resident Handoff in a Multi-Center Cohort," University of Colorado Pulmonary and Critical Care Fellow Joshua Denson et al., 2016.

- Researchers reviewed thousands of internal medicine patient discharges from ten Veterans Administration hospitals between 2008 and 2014 and found that the "risk of patient death significantly increases when medical residents leave their monthly clinical rotations and turn their patients' care over to other residents…."

- More specifically, for patients experiencing a transition in care from an intern (a first-year medical resident), resident or both an intern and resident there was a 64-95 percent increase in in-hospital mortality, a 76-82 percent increase in 30-day mortality and a 72-84 percent increase in 90-day mortality.

- "Researchers also noted that the highest mortality risk occurred among handoffs to only an intern, which suggests that level of training is a contributing factor."[300]

Stress/Burnout/Depression.

"Associations of physician burnout with career engagement and quality of patient care: systematic review and meta-analysis," National Institute for Health Research Greater Manchester Centre for Primary Care Senior Research Fellow Alexander Hodkinson et al., 2022.

> After examining the results of 170 observational studies, 45 percent of which were conducted in the U.S., researchers found that physician burnout was "associated with double the risk of patient safety incidents," "more than twofold decreases in professionalism" and "up to threefold decreases in patient satisfaction." In addition, the association between burnout and patient safety incidents "was found to be larger in younger physicians" (*e.g.*, ages 20-30) as well as those "working in emergency medicine and intensive care settings."[301]

2022 State of Mental Health: American Healthcare Workers Report, All Points North, 2022.

> "It's no surprise healthcare workers are suffering from burnout, but according to a new report over the last three months, physicians are struggling the most: 1 in 7 (14%) physicians admit to consuming alcohol or controlled substances at work. More than 1 in 5 (21%) say they consume alcohol or controlled substances multiple times per day. 17% say they consume alcohol or controlled substances at least once daily. These statistics are troublesome for healthcare workers, but they also highlight a dangerous threat to quality patient care."[302]

"Association Between Physician Depressive Symptoms and Medical Errors," University of Michigan Psychiatry Department Researcher Karina Pereira-Lima et al., 2019.

> A study of multiple surveys revealed that "depressive symptoms were associated with nearly twice the rate of self-reported medical errors, like prescribing the wrong medication."[303]

"Acute mental stress and surgical performance," Columbia University Data Science Institute Master's Candidate Peter Dupont Grantcharov et al., 2018.

> The study, published in the *British Journal of Surgery*, "reveals that during stressful moments in the operating room, surgeons make up to 66 percent more mistakes on patients. Using a technology that captured the electrical activity of a surgeon's heart, researchers found that during intervals of short-term stress, which can be triggered by a negative thought or a loud noise in the operating room, surgeons are much more prone to make mistakes that can cause bleeding, torn tissue, or burns."[304]

"Physician burnout: contributors, consequences and solutions," Mayo Foundation for Medical Education and Research Directors Colin P. West, Liselotte N. Dyrbye and Tait D. Shanafelt, 2018.

> The Mayo Clinic-Rochester "longitudinal Internal Medicine Resident Well-Being (IMWELL) Study found that higher levels of burnout were associated with increased odds of reporting a major medical error in the subsequent 3 months. Self-perceived major medical errors were also associated with worsening burnout, depressive symptoms and decrease in quality of life, suggesting a bidirectional relationship between medical errors and distress. …Other studies have found that increased emotional exhaustion levels of physicians working in intensive care units are associated with higher standardized patient mortality ratios," plus "[i]ncreased physician depersonalization levels have been shown to relate to longer recovery times for hospitalized patients postdischarge."[305]

"Physician Burnout, Well-being, and Work Unit Safety Grades in Relationship to Reported Medical Errors," Stanford University Medical School Pediatric Critical Care Instructor Daniel Tawfik et al., 2018.

A Stanford University Medical School survey of physicians in active practice across the United States revealed the following:[306]

- 55 percent of doctors reported symptoms of burnout, with over 10 percent also reporting that they'd made at least one major medical error during the three months prior to being surveyed.
- 78 percent of doctors reporting errors had symptoms of burnout.
- Physicians with burnout were more than twice as likely to make a medical error.
- "[H]ealth care facilities where doctor burnout was seen as a common problem saw their medical error risk rate triple, even if the overall workplace environment was otherwise thought to be very safe."

"Pediatric Resident Burnout and Attitudes Toward Patients," Harvard Medical School Department of Medicine Physician Tamara Elizabeth Baer et al., 2017.

- "A large number of pediatricians in training may already be experiencing burnout, a recent U.S. study suggests, and those who do are more likely to make errors or take shortcuts during treatment."
- "Burned out residents were seven times more likely to make treatment or medication errors that were not due to inexperience or lack of knowledge, compared with residents who were not burned out."

- "Residents reporting burnout were 3.5 times more likely not to fully discuss treatment options or answer a patient's questions and four times more likely to discharge a patient to make the service more manageable."[307]

Surgeon's Birthday.

"Patient mortality after surgery on the surgeon's birthday: observational study," UCLA Medicine Assistant Professor Yusuke Tsugawa, Harvard Medical School Health Care Policy Associate Professor Anupam B. Jena and UCLA Postdoctoral Fellow Hirotaka Kato, 2020.

"30-day mortality rates are approximately 23% higher for patients 65 and older who are treated on a surgeon's birthday."[308]

"Team Nursing."

"Alternative Models of Nurse Staffing May Be Dangerous in High-Stakes Hospital Care," University of Pennsylvania Nursing School Center for Health Outcomes and Policy Research Associate Director and Nursing Associate Professor Karen B. Lasater et al., 2024.

"Hospitals are resurrecting the outdated 'team nursing' model of staffing that substitutes lower-wage staff for registered nurses," which "is likely to result in significant avoidable patient deaths, readmissions, longer lengths of stay, and decreased patient satisfaction, in addition to excess Medicare costs and forgone cost savings to hospitals." Researchers arrived at this conclusion after analyzing a patient sample that "included 6,559,704 Medicare patients admitted to 2676 general acute care hospitals."[309]

Timing (Day, Week, Month).

"Medical malpractice litigation and daylight saving time," Massachusetts General Hospital Anesthesia, Critical Care and Pain Medicine Research Fellow Chenlu Gao, Baylor University Sleep Neuroscience and Cognition Laboratory Research Assistant Candice Lage and Baylor University Psychology and Neuroscience Associate Professor Michael K. Scullin, 2024.

An analysis of NPDB data between January 1990 and September 2018 found that "[m]edical malpractice incidents are more severe during the months of the year when daylight saving time is observed in the U.S." According to researchers, "Results show that both medical malpractice incident severity and payment decisions were higher during the months of daylight saving time compared with the months of standard time, after controlling for whether states observe daylight saving time."[310]

"Association of Primary Care Clinic Appointment Time with Clinician Ordering and Patient Completion of Breast and Colorectal Cancer Screening," Perelman School of Medicine Assistant Professor and Penn Medicine Center for Innovation Director of Operations Shivan J. Mehta et al., 2019.

Researchers examined two years of data on patient visits from 33 primary care practice sites at the University of Pennsylvania Health System and found greater risks to patient health if doctors examined them toward the end of the morning and afternoon shifts. More specifically, "[D]octors ordered fewer breast and colon cancer screenings for patients later in the day, compared to first thing in the morning. All the patients were due for screening, but ordering rates were highest for patients with appointments around 8 a.m. By the end of the afternoon, the rates were 10 percent to 15 percent lower. The probable reasons? Running late and decision fatigue."[311]

"Clinical capital and the risk of maternal labor and delivery complications: Hospital scheduling, timing and cohort turnover effects," Colorado State University Economics and Epidemiology Departments Associate Professor Sammy Zahran et al., 2019.

"[T]he quantity of delivery complications in hospitals are substantially higher during nights, weekends and holidays, and in teaching hospitals."[312] This was the finding after researchers analyzed Texas Department of State Health Services data on over two million cases from 2005 to 2010. More specifically,

- "The odds of a mother experiencing a delivery complication are 21.3 percent higher during the night shift" and "the odds of a delivery complication increase 1.8 percent with every hour worked within a shift."

- "A mother delivering an infant on a weekend is 8.6 percent more likely to encounter a complication than a mother delivering on a weekday."

- "Births occurring on holidays are particularly susceptible to labor or delivery complications, with holiday births being 29.0 percent more likely to have a complication."[313]

"Trends in Survival After In-Hospital Cardiac Arrest During Nights and Weekends," Temple University Medicine Assistant Professor and Geisinger Health System Critical Care Physician Uchenna R. Ofoma et al., 2018.

"Hospital patients who have a cardiac arrest may be more likely to die if it happens in the middle of the night or on a weekend than if it occurs on a weekday,"[314] according to researchers examining data on over 151,000 adults who experienced cardiac arrest at 470 U.S. hospitals from 2000 through 2014.

"Weekend Effect for Percutaneous Coronary Intervention Admissions: A 10-Year U.S. Experience," Mount Sinai Hospital Resident Byomesh Tripathi et al., 2017.

Review of 2004-2013 data revealed that patients admitted to the hospital for a heart attack on the weekend were twice more likely to die than those hospitalized for a heart attack on a weekday.[315]

Vertical Integration.

"The Impact of Vertical Integration on Physician Behavior and Healthcare Delivery: Evidence from Gastroenterology Practices," Harvard Kennedy School Public Policy Associate Professor Soroush Saghafian et al., 2023.

Researchers studied the impact of hospitals purchasing physician practices ("vertical integration") "by examining Medicare patients treated by gastroenterologists, a specialty with a large outpatient volume and a recent increase in vertical integration. Using a causal model and large-scale patient-level national panel data that includes 2.6 million patient visits across 5,488 physicians," they found that "vertical integration affects the quality of care." More specifically:

- "We find that physicians significantly alter their care process (e.g., in using anesthesia with deep sedation) after they vertically integrate, and there is a substantial increase in patients' postprocedure complications. We further provide evidence that the financial incentive structure of the integrated practices is the main reason for the changes in physician behavior because it discourages the integrated practices from allocating expensive resources to relatively unprofitable procedures. We also find that, although integration improves operational efficiency (e.g., measured by physicians' throughput), it negatively affects quality and overall spending."[316]

Wrong-Site Surgery.

"A Contemporary Analysis of Closed Claims Related to Wrong-Site Surgery," Brigham and Women's Hospital Anesthesiology Resident Physician Joy Tan et al., 2023.

- Wrong-site surgeries "are considered 'never events'" yet "continue to occur." They "are events that can cause serious and possibly permanent medical or emotional harm to a patient, including death."

- "[R]esearchers analyzed closed medical malpractice claims pertaining to wrong-site surgeries during a period of 7 years" (2013-2020) and found the following:

    - "The most common types of procedures that involved wrong-site surgery were spine surgery, including spinal fusion and excision of intervertebral disc (22.1%); arthroscopy (14.7%); and procedures on muscles and/or tendons (11.8%)."

- "[T]he most common alleged injuries included the need for additional surgery (45.6%), pain (33.8%), mobility dysfunction (10.3%), aggravated/worsened injury (8.8%), death (7.4%), total loss (7.4%), and scarring (7.4%)."

- "'Our data show that most [wrong-site surgeries] caused significant harm to the patient, with 30.9% causing temporary minor harm, 23.5% causing temporary major harm, and 17.6% causing permanent minor harm,' the study authors stated."

- "'Analysis of malpractice claims can help risk managers and clinicians identify risk factors, patterns, and other circumstances of [wrong-site surgery] with the goal of improving patient safety by identifying interventions to mitigate these risk factors,' the study authors wrote."[317]

"Wrong-Site Surgery, Retained Surgical Items, and Surgical Fires," RAND Corporation Behavioral Scientist and Pardee Graduate School Professor Susanne Hempel et al., 2015.

According to a comprehensive data review published in *JAMA Surgery*, every year there are an estimated 500 surgeries on the wrong body part and 5,000 surgical items unintentionally left in patients' bodies, "which constitute too many events."[318]

❖ HOSPITALS PROFIT BY PROVIDING UNSAFE MEDICAL CARE.

See also, PART 5: PATIENT SAFETY ("Private Equity Ownership").

Unnecessary Back Surgery: Older Americans put at risk while billions in Medicare funds wasted, Lown Institute, 2024.

After examining Medicare fee-for-service (2020-2022) and Medicare Advantage (2019-2021) claims data, the Institute found the following:[319]

- "Over three years, U.S. hospitals performed more than 200,000 unnecessary back surgeries on Medicare beneficiaries. That's one low-value back procedure every eight minutes."

- "These low-value back procedures cost Medicare about $2 billion in total over three years."

"Association of the Hospital Readmissions Reduction Program Implementation with Readmission and Mortality Outcomes in Heart Failure," Brigham and Women's Hospital and Vascular Center Cardiovascular Research Fellow Ankur Gupta et al., 2017.

- "Federal policymakers five years ago introduced the Hospital Readmission Reduction Program to spur hospitals to reduce Medicare readmission rates by penalizing them if they didn't. A new analysis led by researchers at UCLA and Harvard University, however, finds that the program may be so focused on keeping some patients out of the hospital that related death rates are increasing."

- "In a study of 115,245 fee-for-service Medicare beneficiaries at 416 hospitals, implementation of the reduction program was indeed linked to a decrease in readmissions at 30 days after discharge and at one year after discharge among people hospitalized for heart failure. But it was also linked to an increase in mortality rates among these groups of patients."

- "'To avoid the penalties, hospitals now have incentives to keep patients out of hospitals longer, possibly even if previously some of these patients would have been readmitted earlier for clinical reasons,' said first author Dr. Ankur Gupta, cardiovascular research fellow at the Brigham and Women's Hospital, Harvard Medical School. 'Therefore, this policy of reducing readmissions is aimed at reducing utilization for hospitals rather than having a direct focus on improving quality of patient care and outcomes.'"[320]

"The Association between Patient Safety Indicators and Medical Malpractice Risk: Evidence from Florida and Texas," Northwestern University Law School and Kellogg School of Management Professor Bernard S. Black, Northwestern University Economics Department Ph.D. Candidate Amy R. Wagner and Bates White Economic Consulting Senior Economist Zenon Zabinski, 2016.

Researchers examined data from Florida and Texas to determine the connection between adverse patient safety events in hospitals and paid medical malpractice claim rates. Among their discoveries:

> "We find large variation in [adverse event] rates, both across counties and across hospitals within counties. This suggests that many adverse hospital events are avoidable at reasonable cost, since some hospitals are avoiding them. …Why then don't more hospitals devote more effort to this important task? Here we can only speculate, but in big picture, hospital financial incentives for increasing patient safety, including those incentives provided by malpractice liability, are weak."[321]

"Medicare Payment Policy Creates Incentives for Long-Term Care Hospitals to Time Discharges for Maximum Reimbursement," UCLA School of Public Health Professor and Health Policy and Management Department Chair Jack Needleman et al., 2015.

Long-term-care hospitals, which specialize in treating people with serious conditions who require prolonged care,[322] "discharge a disproportionately large share of Medicare patients during a window when they stand to make the most money from reimbursements under the federal program,"[323] not because of patients' needs or their best interests. Based on this

money-making discharge approach, "Medicare had spent $164 million in excess reimbursements on the ventilator patients over the five-year period," for example.[324]

"Hospital Discharges Rise at Lucrative Times," *Wall Street Journal*, February 17, 2015.

- After analyzing Medicare claims paid from 2008 to 2013, the *WSJ* found that "long-term hospitals discharged 25% of patients during the three days after crossing thresholds for higher, lump-sum payments. That is five times as many patients as were released the three days before the thresholds."[325]

- "Long-term-hospital executives sometimes pursued that goal for financial reasons rather than medical ones, say doctors, nurses and former long-term-hospital employees interviewed by the Journal."[326]

- "More than 400 long-term, acute-care hospitals in the U.S. received about $30 billion in Medicare payments from 2008 through 2013," the *WSJ* reported.[327]

- "'The pattern of discharging patients at the most lucrative juncture is 'troubling and disturbing,' says Tom Finucane, a doctor and professor at Johns Hopkins University School of Medicine, after learning of the Journal's findings. 'The health-care system should serve the patients and try to improve their health, and any step away from that is a corruption.' Dr. Finucane and other medical experts say longer-than-necessary hospital stays increase risks for medical errors, infection and unnecessary care. Discharges that come too early can mean patients don't get care they need."[328]

❖ THE SITUATION IS FAR WORSE BECAUSE MAJOR ERRORS GO UNREPORTED AND PATIENT SAFETY INFORMATION IS KEPT SECRET; LIABILITY LIMITS CAN RESULT IN SECRECY.

See also, PART 1: MEDICAL MALPRACTICE LITIGATION ("A Small Number of Doctors are Responsible for Most Malpractice Payouts; Incompetent Physicians are Rarely Held Accountable by State Medical Boards or the Federal Government.")

"Discipline for addicted physicians who relapse is often lenient, secretive," *InvestigateTV*, November 28, 2022.

An analysis of records from every state medical board across the country revealed:

- "A secretive treatment and oversight process for physicians struggling with substance abuse that critics say protects doctor reputations while leaving patients in the dark."

- "Time lags in informing medical boards and the public about significant issues involving addicted doctors."

- "Lenient, delayed punishments for physicians who have put people at risk while battling their own addictions."[329]

"When Malpractice Occurs at Community Health Centers, Taxpayers Pay," *Kaiser Health News*, November 28, 2022.

- "The nation's 1,375 federally qualified health centers, which treat 30 million low-income Americans, are mostly private organizations. Yet they receive $6 billion annually in federal grants, and under federal law their legal liabilities are covered by the government, just as those of the U.S. Department of Veterans Affairs and the Indian Health Service are. That means the centers and their employees can receive immunity from medical malpractice lawsuits and the federal government pays any settlements or court judgments."

- "As a result, the public is often unaware of malpractice allegations against those centers. The health centers and their employees are not named as defendants in the lawsuits, and the government does not announce when it pays to settle cases or court judgments."[330]

"Private Practice: Confidential drug and alcohol programs for physicians keep patients in the dark," *InvestigateTV*, October 31, 2022.

- "InvestigateTV and the Arnolt Center for Investigative Journalism at Indiana University contacted all medical boards across the country, asking how many licensed physicians each had referred to the state's Physician Health Program [PHP] since January 1, 2020." Only 20 states provided information. "At least 1,000 physicians from those states have been referred to PHPs by their medical boards since the start of 2020. Those referred included doctors whose discipline records show have been charged with DUI on the way to work, some who tested positive for drugs, one found slurring and stumbling on the job, and another who admitted to drinking daily while working with patients."

- "[T]he identities of physicians are 'zealously' protected in these confidential programs across the country, InvestigateTV found. Websites for programs in several states indicate written permission would be needed from the doctors being treated to release any information, even if the organization was subpoenaed. Those restrictions on the release of information remain even when doctors are being routinely drug screened and monitored, and actively practicing with a list of conditions following treatment. As many of the program websites show, the PHPs often have no obligation to report doctors and won't always notify the medical board when doctors don't follow the rules. The only firm and universal exception InvestigateTV found is when a physician poses an immediate threat to safety or specific patient harm."

- "'Why wait until someone has been harmed? The imminent danger almost always means someone's been harmed, damaged, or killed in some cases because you didn't catch them earlier on,'" Dr. Sidney Wolfe, founder of Public Citizen's Health Research Group, told *InvestigateTV*. "'Why are the rehab organizations not automatically notifying the medical board? That's because the state medical associations don't like the idea.' State medical associations or state medical societies, as Dr. Wolfe points out, are physician-funded lobbying organizations that play a powerful role in shaping the policies that determine how physicians are licensed, monitored, and policed. InvestigateTV discovered those groups run or have strong ties to at least 17 of the PHPs across the nation, something Dr. Wolfe finds problematic."[331]

"Medical Error Reduction and Prevention," Michigan State University Anesthesiologist Thomas L. Rodziewicz, Kaweah Delta Medical Center Anesthesiologist Benjamin Houseman and Kaweah Health Emergency Medicine Physician John E. Hipskind, 2022.

"Fear of punishment makes healthcare professionals reluctant to report errors. While they fear for patients' safety, they also dread disciplinary action, including the fear of losing their jobs if they report an incident. Unfortunately, failing to report contributes to the likelihood of serious patient harm. Many healthcare institutions have rigid policies in place that also create an adversarial environment. This can cause staff to hesitate to report an error, minimize the problem, or even fail to document the issue. These actions or lack thereof can contribute to an evolving cycle of medical errors."[332]

"Federal physician malpractice database may not work as intended," *Modern Healthcare*, 2022.

- "The American Medical Association initially estimated the [National Practitioner Data Bank] would receive 10,000 annual clinical privilege reports from hospitals per year. But since it opened in 1990, the highest number of reports on medical physician privileges revoked or investigated was in 1991, with 889 reports. In 2021, there were 592 reports. The vast majority of the 1.1 million adverse action reports in the data bank relate to nurse licensure action reports."

- "'There's sort of this conspiracy of silence in which everything goes along pell-mell, merrily business as usual,' said Dr. Vikas Saini, president of the Lown Institute, which publishes research on unnecessary procedures. 'Hospitals have no incentive to say, 'are you sure everything we're doing is needed?' Hospitals are in the business of collecting revenue, and so it's not that they're deliberately engaging in ripping off communities, it's that they have no incentive to try to be better, and they have plenty of disincentives.'"[333]

"After 'Dr. Death,' disciplinary records still a secret, despite state law," *KXAN*, March 16, 2022.

- "The NPDB is a confidential clearinghouse containing things a patient would want to know in order to make informed treatment decisions – such as whether a surgeon is banned from operating at a hospital and any medical malpractice settlements or disciplinary records."

- "Digging through thousands of physician disciplinary records from more than a dozen states, a KXAN investigation found nearly 50 doctors who have been disciplined or had their medical licenses suspended or revoked in other states who are still practicing in Texas, or able to, with 'clean' records. More than a dozen of them were issued Texas medical licenses after facing disciplinary actions elsewhere."[334]

***Looking for Doctor Information Online: A survey and ranking of state medical and osteopathic board websites in 2021*, Informed Patient Institute and Patient Safety Action Network, 2022.**

- "No medical or osteopathic board website in the country included one piece of critical information for the public: the number and type of complaints received about a doctor. It is noteworthy when a member of the public or a fellow health professional takes the time and effort to file a complaint about a physician."[335]

- "Only 14 (22%) of the state medical board Profiles we reviewed included a plain English summary of this information."[336]

- "Eighteen (28%) of the Profiles on medical board websites provided information about actions taken in other states against a doctor, while most states did not. …This is particularly important as a recent report by the [Federation of State Medical Boards] noted that almost a quarter (23%) of physicians hold two or more active licenses."[337]

- "Only about a third (36%) of Physician Profiles had any information about malpractice settlements or judgments. Those that did varied in the degree to which they provided complete information. For the states that included some type of information about medical malpractice settlements or judgments, few provided detailed information:

    - Seven state medical boards (11%) provided all medical malpractice payouts/settlements.

    - Four (6%) provided the exact amounts of the malpractice payouts/settlements.

  …Several states had long disclaimers for users seemingly designed to discourage or limit the impact of the malpractice information by suggesting the information was not connected to quality of care."[338]

- '"Would you want to know if your doctor has been disciplined and why? Whether they had malpractice settlements? Whether they could no longer practice at a hospital because of some safety concern by the hospital? Or, whether they had a criminal record?' asked [Patient Safety Action Network] Board Chair Lisa McGiffert. 'The reality is that most

states only provide a sliver of this pertinent information that may tell a doctor's history of harming or putting patients at risk.'"[339]

"Assessing the Quality of Public Reporting of US Physician Performance," University of Michigan School of Public Health Ph.D. Candidate Jun Li et al., 2019.

There is an egregious lack of information regarding the safety records of individual doctors providing care to Medicare enrollees. Researchers came to this conclusion after looking at the scarce amount of data on 1 million U.S. doctors made available online by the U.S. Centers for Medicare and Medicaid Services.[340] Among the study's more troubling discoveries:

- Three quarters of clinicians have no information about their quality of care.

- 99 percent of those in the online system have no data tied to their individual job performance, "making it hard for patients to know who might be a better or worse choice among several physicians at one clinic."

- "Doctors who did share individual level outcomes tended to have very high quality scores, suggesting that physicians may only opt into the voluntary reporting system when they know the results will make them look good…."

- "Clinicians also aren't required to report data on outcomes for every patient, and they may choose only to submit information for cases that turned out well…."

"Maternal deaths and injuries: Top 10 takeaways from USA TODAY investigation of hospitals," *USA TODAY*, March 11, 2019.

- "Hospitals often won't say whether they follow key safety practices. Many maternity hospitals refused to answer basic questions about whether or not they are following specific safety protocols. …[W]hen USA TODAY repeatedly contacted 75 hospitals in 13 states, half would not disclose whether they are doing [basic safety] things."

- "Safety data about maternity care is kept secret. Even though pregnancy and childbirth is the No. 2 reason for hospitalization in this country, the federal government doesn't require hospitals to tell the public how often mothers die or suffer from childbirth complications. …USA TODAY's investigation for the first time published rates of severe childbirth complications at hundreds of hospitals. It's a number that many hospitals and experts use privately – but don't think should be shared publicly."

- "Many states fail to track and study moms' deaths. USA TODAY further revealed that state maternal death review committees across the country often avoid scrutinizing medical care that occurred in the days and hours before mothers' deaths – instead focusing on women's lifestyle choices or larger societal problems, like obesity, smoking and seatbelt use. Some states didn't study mothers' deaths at all."[341]

"How Liability Insurers Protect Patients and Improve Safety," University of Pennsylvania Law School Professor Tom Baker and University of Texas at Austin Law School Professor Charles Silver, 2019.

- Hospitals infrequently report information to the National Practitioner Data Bank (NPDB) and use a tactics like the "corporate shield" to avoid reporting. "One study found that more than two-thirds of the hospitals examined reported no adverse events to the NPDB over a 5-year span. Another estimated that 75% of 'potentially reportable actions' and 60% of 'unquestionably reportable actions' went unreported."

- "Providers' use of the so-called 'corporate shield' impairs the NPDB's completeness too. The shield is employed when 'the medical corporation for which the doctor works is named in the suit, and the doctor is either not originally named or is released specifically for the purpose of avoiding a report to the NPDB.' Although the extent to which this tactic reduces the number of payments that are reportable to the NPDB is not known, some authors believe that one-half of otherwise reportable adverse events are deflected by this means."

- "The University of Michigan Health System avowedly uses the corporate shield, and its settlements are generally in the institution's name. …[H]ence under this approach 'reporting of individual caregivers in medical malpractice claims in the National Practitioner Data Bank is rare. However, full claims histories are maintained and reported for each involved caregiver, as required.'…Even though it rarely reports medical malpractice payments, it still actively reports adverse actions on a provider's privileges or credentials to the NPDB."[342]

"Culture of Secrecy: How hospitals hide medical malpractice," *WEWS-TV 5*, November 13, 2015.

- "An exclusive WEWS-TV investigation reveals the culture of secrecy surrounding medical malpractice. Investigators found hospitals carefully track medical mistakes but often keep detailed information about errors hidden from patients and the public."

- "'People who are injured as a result of medical malpractice are almost never told that has happened by their doctors or by hospitals where it's happened,' said Maxwell Mehlman, the Director of the Law-Medicine Center at Case Western Reserve University."

- The news investigation also discovered "how difficult it can be for patients to find out the truth about medical mistakes."[343]

❖ LITIGATION, SETTLEMENTS AND INSURANCE PLAY CRITICAL SAFETY ROLES WHILE "TORT REFORM" LAWS HARM PATIENT SAFETY.

"The Dark Side of Insurance," University of Texas and Tel Aviv University Law Professor Ronen Avraham and Tel Aviv University President Ariel Porat, 2023.

> "[C]aps on damages…have the ulterior consequence of de-incentivizing doctors to behave carefully, as the caps reduce the total potential liability risk on their actions. This relaxation in care might result in a riskier world as doctors-insureds have suboptimal incentives to take due care."[344]

"The California Malpractice Cap on Noneconomic Losses: Unintended Consequences and Arguments for Reform," UCLA Fielding School of Public Health Professor and Health Policy and Management Department Chair Jack Needleman, 2022.

- California's $250,000 noneconomic losses cap, "by lowering the risk of suit for malpractice, also weakens the deterrent effect of risk of suit on physician efforts to avoid malpractice. The best available research suggests imposing caps is associated with a 16% increase in adverse events. …The estimated additional costs due to loss of deterrence are a significant offset to the potential costs of higher and more frequent claims were the cap to be eliminated or raised to reflect inflation."[345]

- "[I]mposing a cap on awards also reduces the incentive to avoid malpractice. If the incentive to reduce malpractice is weakened, and malpractice rates increase, this raises the potential costs to patients and insurers as well as increasing potential noneconomic losses for patients."[346]

- "[I]t is likely that repeal of a cap on noneconomic damages would increase attention to patient safety and lead to reduction of adverse patient events. These changes would be associated with cost savings to payers and patients, and reduced economic and noneconomic damages that improve the life and health of patients."[347]

- In 2018, over a quarter of a million Medi-Cal patients experienced a "never event" (*i.e.*, a serious incident that is wholly preventable or avoidable, such as an object left in a patient after surgery, a mismatched blood transfusion or hospital-acquired pressure ulcer), with the state spending "approximately $1.5 billion on these cases. Many of these costs could be avoided if California's malpractice cap was lifted or substantially raised. A 16% reduction in adverse events could mean savings to the state as much as $245 million annually," according to the study.[348]

Lifesavers, Center for Justice & Democracy, 2021.

> Numerous medical practices have been made safer only after the families of sick and injured patients filed lawsuits against those responsible. These include anesthesia procedures, catheter placements, drug prescriptions, hospital staffing levels, infection control, nursing

home care and trauma care. As a result of such lawsuits, the lives of countless other patients have been saved.[349]

"The Deterrent Effect of Tort Law: Evidence from Medical Malpractice Reform," Northwestern University Law School and Kellogg School of Management Professor Bernard S. Black and Bates White Competition and Antitrust Consultant Zenon Zabinski, 2019.

- "We examine whether caps on non-economic damages in medical malpractice cases affect in-hospital patient safety. We use Patient Safety Indicators (PSIs) – measures of adverse events – as proxies for safety. In difference-in-differences (DiD) analyses of five states that adopt caps during 2003-2005, we find that patient safety gradually worsens after cap adoption, relative to control states."

- "We find a broad increase in adverse patient safety events following damage cap adoption, across both most individual PSIs and across composite measures that combine related PSIs, both for individual states and pooled across states. In Texas, for example, PSI rates are generally stable or declining, relative to control states prior to reform. After reform, most PSI rates rise: 18 of the 21 measures have positive DiD coefficients; nine of these increases are statistically significant, while none of the three declines are statistically significant. This is consistent with hospitals reducing investments in patient safety. Across states and PSIs, we find a mean increase of about 15% in adverse events after reform."

- "We find evidence that state adoption of caps on non-econ damages in medical malpractice lawsuits predicts higher rates of preventable adverse patient safety events in hospitals. To the best of our knowledge, our study is the first, either for medical malpractice or indeed, in any area of personal injury liability, to find strong evidence consistent with classic tort law deterrence theory: Liability for harm induces greater care and relaxing liability leads to less care. The drop in care quality occurs gradually over a number of years following adoption of damage caps."

- "We find a gradual rise in rates for most PSIs after reform, consistent with a gradual relaxation of care, or failure to reinforce care standards over time. The decline is widespread, and applies both to aspects of care that are relatively likely to lead to a malpractice suit (e.g., PSI-5; foreign body left in during surgery), and aspects that are unlikely to do so (e.g., PSI-7; central-line associated bloodstream infection). The broad relaxation of care suggests that med mal liability provides 'general deterrence' – an incentive to be careful in general – in addition to any 'specific deterrence' it may provide for particular actions."

- "[O]ur results lend additional support for the conclusion that standards of care affect the behavior of healthcare provider. Higher standards can lead to higher healthcare quality; reduced liability pressure can lead to lower quality. …Our results suggest that one should

be cautious about relaxing tort liability without providing a substitute source of incentives."[350]

"How Liability Insurers Protect Patients and Improve Safety," University of Pennsylvania Law School Professor Tom Baker and University of Texas at Austin Law School Professor Charles Silver, 2019.

- "[M]edical liability insurers exist, and therefore do everything that they do, only because injured patients have the right to legal recourse. Moreover, we know what we know about the landscape of adverse medical events largely because of medical malpractice claims. This is obviously the case for the many important studies that use insurance company closed claim files as the data source. However, people often forget that the most important, large-scale, hospital-based studies of adverse medical events had their origins in efforts by the medical profession to prove there was a better way to address patient injuries than tort litigation. While the studies failed to achieve that goal, they did achieve something important: documenting that serious adverse medical events are a major public health problem."

- "[I]nsurers protect patients by providing compensation that helps insurers deal with the consequences of medical mistakes. …[I]t would be a mistake to view policy limits only as caps on injured patients' recoveries because the existence of insurance coverage is what enables patients to obtain compensation. Insurers are the bankers for the tort system. Without them, the liability system as we know it could not function."[351]

"Clues to Better Health Care from Old Malpractice Lawsuits," *Wall Street Journal*, May 9, 2016.

- "Doctors are learning valuable new lessons from past malpractice cases about mistakes that could put their patients at risk and expose them to lawsuits."

- "Malpractice insurers and medical specialty groups are mining thousands of closed claims from suits that have been tried, dismissed or settled over the past few years. Their goal is to identify common reasons that doctors are sued and the underlying issues that threaten patient safety. They are sharing those insights with doctors and hospitals, which in turn are using them to develop new safety protocols and prevention strategies."[352]

"Uncovering the Silent Victims of the American Medical Liability System," Emory University Associate Law Professor Joanna Shepherd, 2014.

- "Damage caps and other tort reforms that artificially reduce plaintiffs' damage awards also reduce contingent fee attorneys' expected recoveries. As a result, even fewer cases make economic sense for the attorneys to accept. …Victims who cannot attain legal representation are effectively excluded from the civil justice system. Because of the complexity and expense of medical malpractice lawsuits, employing a lawyer is critical to a successful claim. Thus, without legal representation, most of these victims will not

be compensated for the harm they suffer as a result of medical negligence. In turn, the medical liability system will fail to provide adequate precautionary incentives for healthcare providers."

- "Empirical evidence suggests that the lack of victim compensation has, in turn, reduced the liability system's deterrent effect by blunting incentives for the medical community to improve care; most studies find that malpractice liability does not influence physician behavior."[353]

"A Dose of Reality for Medical Malpractice Reform," UCLA Law Professor Joanna C. Schwartz, 2013.

"[M]alpractice lawsuits are playing an unexpected role in patient safety efforts: as a source of relevant information about medical error. The vast majority of interviewees and survey participants report that their hospitals review legal claims, the information developed during the course of discovery, and closed claims for patient safety lessons." Moreover, "litigation data has proven useful to hospital patient safety efforts. Lawsuits reveal allegations of medical negligence and other patient safety issues about which hospital were previously unaware; depositions and discovery materials surface previously unknown details of adverse events; analyses of claim trends reveal problem procedures and departments; and closed claims files serve as rich teaching tools."[354]

❖ "FEAR OF LITIGATION" IS NOT THE MAIN REASON DOCTORS FAIL TO REPORT ERRORS.

Hospital Incident Reporting Systems Do Not Capture Most Patient Harm, Office of Inspector General, U.S. Department of Health and Human Services, 2012.

The report found that massive error underreporting at hospitals is caused by widespread employee failure to recognize patient harm. According to the HHS Inspector General, "[T]he problem is that hospital employees do not recognize 'what constitutes patient harm' or do not realize that particular events harmed patients and should be reported. In some cases, he said, employees assumed someone else would report the episode, or they thought it was so common that it did not need to be reported, or 'suspected that the events were isolated incidents unlikely to recur.'"[355]

PART 6: SPECIAL PROBLEMS FOR ACTIVE-DUTY SERVICEMEMBERS, VETS AND MILITARY FAMILIES

The Department of Veterans Affairs' (VA) Veterans Health Administration (VHA) operates one of the largest health-care systems in the nation, providing care at 1,380 health care facilities to over 9.1 million veterans.[356]

Veterans Health Administration: Additional Actions Needed to Improve Oversight of Health Care System, U.S. Government Accountability Office, 2024.

"The GAO found that the [VHA's] Committee for Audit, Risk and Compliance, which reviews findings from investigations into adverse medical events and alleged malpractice, did not regularly perform its duties or provide systemwide improvement recommendations – a shortcoming that could undermine the quality of care at VA health facilities, according to the GAO."[357]

"Military leader speaks about malpractice investigations after months of requests," *InvestigateTV*, June 30, 2024.

- "When military doctors are disciplined or lose a malpractice case, the agency that oversees healthcare for service members and their families is required by federal law to keep their names confidential, a top official said. …[S]ome families have had to fight for years to obtain the answer to the most basic question: What happened?"

- "InvestigateTV's examination of medical board disciplinary actions across the nation found almost no evidence of that reporting making its way into the public sphere. Although our investigation uncovered nearly 500 reports of military providers to the confidential National Practitioner Data Bank between 2018-2022, the Defense Health Agency keeps the names of those individuals under wraps" per "federal law that prohibits the release of that information."

- "Since 2022, InvestigateTV has been documenting the lack of transparency in the military healthcare system, raising questions about the quality of care provided to those who serve, as well as the nearly $1 billion in taxpayer money that's been paid out in the last 15 years as a result of malpractice claims or lawsuits filed when people are severely hurt or killed at the hands of military providers."[358]

"Military Services Approving Roughly 3% of Malpractice Claims from Service Members," *Military.com*, June 7, 2024.

- "In the four years since Congress passed a law allowing troops to file claims against the Defense Department for medical malpractice, the military services have received 597 claims and approved just 20, or 3%."

- "Data provided by the services to Military.com showed the Army, the largest service, has received 258 claims and approved 12, worth $3.3 million. …The Army has denied 81 claims and, according to the service, is considering three under appeal and 162 under investigation."

- "The Navy has received 188 claims since Jan. 1, 2020, from sailors, Marines or surviving families of service members who filed claims before they died. The Navy has approved three for a total of $950,000 – one of which was a $250,000 payout. The sea service has denied 103 claims and has two on appeal and 80 under investigation."

- The Air Force has received 151 claims and has approved five, for a total award amount of $75,325 – the lowest average for any service. It has denied 71 claims, transferred 18 to other services and has one on appeal. The remainder are under investigation."

- "Critics have said the process has been too slow and cumbersome to actually help service members. Troops denied claims can appeal but…the reviews simply look at whether the claims process was done correctly and is not an analysis of the medical decision, nor does it allow for additional input from the service member to support their claim."[359]

"Pentagon Raises Cap on Service Members' Medical Malpractice Claims," *Military.com*, October 20, 2023.

- In 2019, the SFC Richard Stayskal Military Medical Accountability Act became law, which allows active-duty military members to file claims for medical malpractice caused by military or civilian doctors in military hospitals and clinics. Lawmakers and advocates "have alleged the Pentagon has not followed the spirit of the law, citing what they describe as an opaque process for deciding claims and a low approval rate."

- Under the Act, non-economic (pain and suffering) compensation was capped at $600,000. In October 2023, the Pentagon raised the cap to $750,000. Manuel Vega, a Marine Corps veteran and founder of Save Our Servicemembers, a nonprofit that advocates for military malpractice reforms, "pointed out that the 2020 National Defense Authorization Act authorized $400 million over 10 years for the Pentagon to pay military medical malpractice claims made after January 2017. But, in reality, very few have been approved. …Even Master Sgt. Richard Stayskal, for whom the law that allowed the claims is named, had his claim denied earlier this year"; he developed terminal lung cancer after military doctors missed a large tumor, misdiagnosing his condition numerous times.[360]

"Mullin Calls for Justice and Accountability for Victims of DOD Medical Malpractice," Office of U.S. Senator Markwayne Mullin, March 30, 2023.

"'What happened to SFC Richard Stayskal, and so many others, is a tragedy. We know that of the 155 medical malpractice claims that have been processed, 144 have been denied, and

that's just within the Army. That's a serious problem. The DOD has repeatedly failed in its basic obligation to protect our service members, and they are liable.'"[361]

"The Feres Doctrine: The Fight to End a Systemic Miscarriage of Military Justice," *Vanity Fair*, November 10, 2022.

- "According to information the DOD Office of General Counsel included in a presentation this past February, as of December 31, 2021, the total number of Stayskal Act claims filed in the Air Force was 105; in the Navy, 101; in the Army, 149. Only two settlement offers had been accepted by claimants. Both of those were Air Force: one for $20,000 and another for $10,000. …[N]o claims had yet been paid."

- "The [non-economic damages] compensation cap is just one of the things that Stayskal doesn't love about the act that bears his name. He is proud of the work he did to get it passed, but he will be the first to tell you this new process is not nearly the justice active-duty service members deserve. That, he said, will only happen when the *Feres* doctrine is abolished. What troubles Stayskal and victims like him and their families most is that without the ability to sue, there is no discovery process to compel the DOD or the government to produce documents or information; and without that, there can be no accountability; and without accountability, there can be no justice."[362]

"Military Approving 2% of Medical Malpractice Claims Filed by Service Members," *Military.com*, October 26, 2022.

- "U.S. service members are seeing little success in making claims for medical malpractice against military hospitals and physicians under a law passed in 2020 that allowed them to file compensation claims. Data provided by the services to Military.com shows that troops have filed 448 claims with the Departments of the Army, Navy and Air Force seeking more than $4 billion in damages. But of those, just 11 have been settled, an approval rate of 2%, while more than one-quarter have been denied."

- "According to data from the services, the Navy has received 146 claims from sailors, Marines or their families, seeking $1.1 billion in compensation. The Navy has denied 58 claims and settled one, for $250,000." The Army "said it had 184 claims alleging damages up to $1.65 billion. It has approved six and denied 36, while another 73 cases received an initial denial and are in the appeals process. The remaining 69 are under investigation. …The Air Force has received 118 claims worth up to $1.3 billion. The service has settled four cases and denied 23 without the chance of an appeal. Six additional cases were appealed to the Defense Health Agency, which denied five and is still considering one remaining case. The Air Force did not answer questions about how much it had paid out to date."[363]

VA Nursing Home Care: Opportunities Exist to Enhance Oversight of State Veterans Homes, U.S. Government Accountability Office, 2022.

- "The Department of Veterans Affairs (VA) is the only federal entity that oversees all 153 state veterans homes, which provide nursing home care to roughly 14,500 veterans. …Our analysis of VA's annual inspection data for 2019 and 2021 found increases in both the number of deficiencies and the number of deficiencies that were classified as causing actual harm, including immediate jeopardy."

- "Specifically, we found that the number of deficiencies increased from 424 in 2019 to 766 in 2021. Similarly, the average number of deficiencies cited per inspection increased from 2.8 in 2019 to 6.2 in 2021. Further, 36 state veterans homes had no deficiencies in 2019; in 2021 all homes had at least one deficiency that caused no actual harm but had the potential for more than minimal harm."

- "[W]e found that deficiencies that caused actual harm or immediate jeopardy – the most severe ratings – increased as a share of total deficiencies from 8 percent in 2019 to 20 percent in 2021. Further, the percent of state veterans homes with at least one deficiency that caused actual harm increased from 9 percent in 2019 to 63 percent in 2021. About 79 percent of all deficiencies in 2021 with a severity rating of actual harm resulted from non-compliance with standards associated with preventing accidents; preventing and treating pressure sores (i.e., bedsores); and providing the necessary care and services to attain or maintain the highest practicable physical, mental, and psychosocial well-being of each resident."[364]

Military Health Care: Improved Procedures and Monitoring Needed to Ensure Provider Qualifications and Competence, U.S. Government Accountability Office, 2022.

- "The Defense Health Agency [DHA] is responsible for ensuring the quality and safety of health care delivered by individual providers at its military medical treatment facilities. However, GAO found that four selected facilities and the Defense Health Agency did not always adhere to the agency's clinical quality management procedures in part because they were unclear."

- **"**GAO reviewed documentation for 100 providers from four selected facilities and found that the facilities did not always adhere to the Defense Health Agency's procedures for credentialing and privileging," which "are intended to help ensure that providers are qualified and competent. Specifically, the four selected [military medical treatment facilities] MTFs did not always verify all medical licenses, conduct providers' performance assessments, or query national databases before granting providers privileges, in accordance with requirements in the DHA procedures manual." For example, "for about one-sixth of providers reviewed, the facilities did not verify all medical licenses before granting privileges. Additionally, for almost half of the providers reviewed, the facilities did not obtain clinical references from appropriate individuals such as the program director, as required."[365]

Veterans Community Care Program: VA Should Improve Its Ability to Identify Ineligible Health Care Providers, U.S. Government Accountability Office, 2022.

- "GAO found vulnerabilities in the controls used by the Veterans Health Administration (VHA) and its contractors to identify health care providers who are not eligible to participate in the Veterans Community Care Program (VCCP), resulting in the inclusion of potentially ineligible providers."

- "Of over 800,000 providers assessed, GAO identified approximately 1,600 VCCP providers who were ineligible to work with the federal government, were reported as deceased, or had revoked or suspended medical licenses. For example, GAO identified a provider eligible for referrals in the VHA system but whose medical license had been revoked in 2019. Licensing documents stated that the provider posed a clear and immediate danger to public health and safety."[366]

Veterans Community Care Program: Immediate Actions Needed to Ensure Health Providers Associated with Poor Quality Care Are Excluded, U.S. Government Accountability Office, 2021.

GAO reviewed data from July 1, 2016 to September 2020 and found that the Department of Veterans Affairs had been endangering veterans by exposing them to treatment from 363 providers "who lost a license for violating medical license requirements in any state or who VA removed from employment for quality of care concerns or [were] otherwise suspended from VA employment." According to GAO, there is "a continued risk" to patients since the VA "stated that it has no plans" to review 227 of the providers GAO identified as problematic.[367]

PART 7: STATES THAT CAP DAMAGES

Caps on Medical Malpractice Compensatory Damages[368]

- The following six states have total caps (*i.e.*, caps encompassing economic and non-economic damages, although some exempt future medical care): Colorado,[369] Indiana, Louisiana, Nebraska, New Mexico and Virginia.

- The following 23 states have non-economic damages caps: Alaska, California, Colorado,[370] Hawaii,[371] Idaho, Iowa, Maryland, Massachusetts, Michigan, Mississippi, Missouri,[372] Montana, Nevada, North Carolina, North Dakota,[373] Ohio,[374] South Carolina, South Dakota,[375] Tennessee, Texas, Utah, West Virginia and Wisconsin.[376]

- Nine states had caps that were later found to be unconstitutional; legislatures haven't repassed them. They are: Alabama, Florida, Georgia, Illinois, Kansas, New Hampshire, Oklahoma, Oregon[377] and Washington.

- The following 22 states plus the District of Columbia have no caps (although some limit damages in death cases): Alabama, Arizona, Arkansas, Connecticut, District of Columbia, Delaware, Florida, Georgia, Illinois, Kansas, Kentucky, Maine, Minnesota, New Hampshire, New Jersey, New York, Oklahoma, Oregon, Pennsylvania, Rhode Island, Vermont, Washington and Wyoming.

NOTES

[1] Thirty states plus the Northern Mariana Islands and Puerto Rico reported data for total incoming civil and medical malpractice cases in 2023. Their rates were as follows: Alabama (0.1 percent), Alaska (0.12 percent), Arizona (0.11 percent), Arkansas (0.15 percent), Connecticut (0.16 percent), Delaware (0.14 percent), Florida (0.09 percent), Georgia (0.08 percent), Idaho (0.03 percent), Iowa (0.12 percent), Kentucky (0.14 percent), Maine (0.33 percent), Maryland (0.07 percent), Massachusetts (0.19 percent), Michigan (0.14 percent), Minnesota (0.02 percent), Nebraska (0.11 percent), Nevada (0.12 percent), New Hampshire (0.11 percent), New York (0.48 percent), Northern Mariana Islands (0.15 percent), Oregon (0.13 percent), Pennsylvania (0.39 percent), Puerto Rico (0.14 percent), Rhode Island (0.14 percent), South Carolina (0.14 percent), Tennessee (0.5 percent), Texas (0.08 percent), Utah (0.17 percent), Vermont (0.18 percent), Wisconsin (0.03 percent) and Wyoming (0.15 percent). National Center for State Courts, "CSP STAT Civil: Trial Court Caseload Overview, Data Table – Malpractice Medical," https://www.courtstatistics.org/court-statistics/interactive-caseload-data-displays/csp-stat-nav-cards-first-row/csp-stat-civil (data as of October 18, 2024); National Center for State Courts, "CSP STAT Civil: Trial Court Caseload Overview, Data Table – Total Civil," https://www.courtstatistics.org/court-statistics/interactive-caseload-data-displays/csp-stat-nav-cards-first-row/csp-stat-civil (data as of October 18, 2024).

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[3] Thirty states plus the Northern Mariana Islands and Puerto Rico reported data for total incoming tort and medical malpractice cases in 2023. Their rates were as follows: Alabama (1.91 percent), Alaska (2.77 percent), Arizona (3.24 percent), Arkansas (4.79 percent), Connecticut (2 percent), Delaware (1.82 percent), Florida (0.98 percent), Georgia (2.05 percent), Idaho (3.52 percent), Iowa (5.32 percent), Kentucky (4 percent), Maine (7.24 percent), Maryland (2.75 percent), Massachusetts (7.85 percent), Michigan (3.27 percent), Minnesota (0.66 percent), Nebraska (6.52 percent), Nevada (2.5 percent), New Hampshire (3.47 percent), New York (5.66 percent), Northern Mariana Islands (4 percent), Oregon (2.5 percent), Pennsylvania (4.6 percent), Puerto Rico (10.6 percent), Rhode Island (2.12 percent), South Carolina (3.19 percent), Tennessee (2.77 percent), Texas (1.72 percent), Utah (6.28 percent), Vermont (6.24 percent), Wisconsin (1.35 percent) and Wyoming (12.4 percent). National Center for State Courts, "CSP STAT Civil: Trial Court Caseload Overview, Data Table – Malpractice Medical," https://www.courtstatistics.org/court-statistics/interactive-caseload-data-displays/csp-stat-nav-cards-first-row/csp-stat-civil (data as of October 18, 2024); National Center for State Courts, "CSP STAT Civil: Trial Court Caseload Overview, Data Table – Total Tort," https://www.courtstatistics.org/court-statistics/interactive-caseload-data-displays/csp-stat-nav-cards-first-row/csp-stat-civil (data as of October 18, 2024).

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[82] CBO puts it this way: "[A]lthough both theory (Frakes 2015) and anecdotal evidence indicate that laws that lower malpractice liability, such as noneconomic damage caps, would be expected to (weakly) reduce utilization of imaging and testing services, CBO estimates modest increases in the utilization rates of those services after the enactment of noneconomic damage caps (estimates not shown)." Ibid. Indeed, as other researchers have said, "An often proposed remedy [to so-called 'defensive medicine'] is caps on non-economic damages. …We report evidence, from a careful study with a large, patient level dataset, of a more complex and nuanced response to caps. Rates for cardiac stress tests and other imaging tests appear to rise, instead of falling, and overall as does Medicare Part B lab and radiology spending. Yet cardiac interventions do not rise, and likely fall. There is no evidence of a fall in overall Medicare spending and, consistent with a recent prior paper (Paik et al., 2017), some evidence of higher Part B spending." Bernard S. Black, Steven Farmer and Ali Moghtaderi, "Damage Caps and Defensive Medicine: Reexamination with Patient Level Data," Northwestern University Law and Economics Research Paper No. 16-xx, June 13, 2018, http://ssrn.com/abstract=2816969
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