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Introduction

Aon's actuaries are pleased to release the 22nd annual edition of the Aon/ASHRM Hospital and Physician Professional Liability Benchmark Analysis.

As always, we are grateful to benchmark participants for their interest in engaging with us on this survey and for making the time and effort to provide their data and responses to us.

Similar to prior years, Aon's National Healthcare practice has supported the production of this benchmark report which serves to inform the healthcare industry on medical professional liability claim cost trends.

This benchmark study is produced under a co-marketing agreement between Aon and The American Society for Health Care Risk Management (ASHRM). Participation in this edition was open to all ASHRM members.

The actuarial analysis is designed as a hands-on tool to provide healthcare risk managers with a better understanding of their cost of risk compared to an industry benchmark. Through measurement, analysis, and comparison of the claim and exposure data, risk managers and other stakeholders are able to develop proactive strategies to reduce risk-related costs and improve claim outcomes.

The report analyzes this year's hospital professional liability (HPL) and physician professional liability (PPL) claims database that consists of nearly 104,000 non-zero claims that occurred between 2011 and 2020 and are worth \$23.8 billion in incurred losses.

In addition, the database also includes 17,000 non-zero general liability (GL) claims that represent \$586 million in incurred losses that occurred between 2011 and 2020.

This report provides actuarial and underwriting insights on:

- Countrywide HPL, PPL, and GL benchmark claim costs expressed in frequency and severity components— based on this year's database of 109 systems.
- The impact of the COVID-19 pandemic on the medical professional liability (MPL) risk.
- Benchmark loss costs for systems that use alternate risk transfer mechanisms to insure their MPL risk.
- An analysis of changes in MPL retentions, insured limits and premium rates between current and prior insurance program renewals.

- Medical malpractice claim cost, overall inflation, retention, exposure and premium rate trends in the past decade that is based on an analysis conducted by Sompo.
- Overall claim cost trends and the relationship between loss costs and Centers for Medicare and Medicaid (CMS) star ratings, from an analysis undertaken by Beazley.
- Healthcare risk management department characteristics, including insight on risk professionals and Certified Professional in Healthcare Risk Management (CPHRMs) employed, batch claims, captive usage and cash on hand.
- Benchmark statistics by hospital service line, demographics, and by type of claim disposition.
- Benchmark statistics for twenty two individual states as well as territory breakouts for Florida, Illinois and Pennsylvania.
 The data volume for each of these geographies lends itself to credible actuarial analyses while maintaining participants' confidentiality.

This report examines trends in ultimate frequency, severity and loss rates related to hospital and physician professional liability exposures. Unless noted otherwise, metrics that appear throughout the report are defined as follows:

- Frequency number of non-zero claims per occupied bed equivalent (OBE) or per Class 1 physician equivalent.
- Severity (limited to \$2 million per occurrence) average loss per claim, where loss comprises indemnity and defense costs.
- Loss Rate (limited to \$2 million per occurrence) annual ultimate loss dollars per OBE or per Class 1 physician equivalent.
- Occupied Bed Equivalent a standard measure of the overall hospital professional liability risk comprising a weighted contribution from 11 hospital volume metrics.
- Class 1 Physician Equivalent a standard measure of the physician professional liability risk based on the exposure represented by one full-time Family Practice (no surgery) physician over the course of one year.

ASHRM's contribution towards the production of this Benchmark Analysis is limited to providing promotion and distribution support. Aon is solely responsible for the design, execution and interpretation of this Benchmark Analysis and holds the copyright thereto.

Letter to Our Readers

This report delivers on Aon's mission to provide robust, data driven insights to the healthcare industry. The purpose of this report is to provide analysis findings to risk managers and financial leaders of healthcare systems in the United States that will help them better understand current medical malpractice claim cost trends. We hope that the insights you gain from this study will enable you to better manage your organization's medical malpractice risk by helping you assess it relative to that of benchmark participants.

With each annual edition, we endeavor to share observations on emerging and noteworthy areas of interest related to the hospital and physician professional liability environment. The current report provides insights into:

- The nature of claims relating to COVID-19, the pandemic's impact so far on claim reporting and closure patterns and systems' financial metrics
- Changes to medical professional liability program features including premium rates between current and preceding insurance renewals
- Claim cost, inflation, retention and premium rate changes since 2001
- The relationship between loss costs and CMS star ratings
- Frequency and severity differences by usage of alternative risk transfer vehicles

The other sections of this report present detailed findings of our analyses of countrywide historical loss rates, frequency and severity metrics, claim costs by cause of loss, claim lag patterns, and claim cost trends by service line, demographic, claim disposition and geographic groupings.

We have also included summarized responses pertaining to risk management department characteristics which will help you better understand how your organization relates to your peers and may also help you in improving risk management practices.

We would like to thank all the healthcare providers who participated in the study. It is our participants' efforts that make this benchmark analysis a credible and comprehensive tool for the industry. As always, we are deeply appreciative of participants' time and effort.

We would also like to thank our dedicated healthcare benchmarking team at Aon, as well as our colleagues at Sompo International and at Beazley for contributing their analyses for inclusion within this report.

Please reach out to us if you have any questions on our benchmark analysis.

Sincerely,

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Executive Summary

Key Findings

Hospital and Employed Physician Trends

The frequency of hospital and physician professional liability (HPL and PPL), also referred to as medical professional liability (MPL), claims has remained stable in recent years. We project an annual trend of 0% in the number of such claims experienced by healthcare organizations. However, indemnity and defense costs per claim or claim severity, is estimated to increase by 3% annually.

For the 2022 calendar / accident year, we forecast the countrywide annual loss rate limited to \$2 million per occurrence, to be \$3,420 per occupied bed equivalent and \$4,700 per Class 1 employed physician for professional liability events.

We forecast that HPL and PPL loss rates are increasing by 3% annually.

The Impact of COVID-19 on Medical Professional Liability Claims

The current database shows 18 claims pertaining to confirmed or suspected cases of COVID-19 that occurred in 2020. As compared to the average in 2015-19, 14% fewer claims were reported, and 56% fewer claims were closed within six months of occurrence in 2020. These slowdowns may be attributable to claimants delaying the filing of claims and court closures respectively. OBEs in 2020 were also 4% lower than in 2019. Gross revenues and days cash on hand were higher in 2020 than in 2019 and are likely due to aid received by health systems under the CARES Act.

Analysis of Medical Malpractice Insurance Program Structures

New to this year's report is an analysis of average premium rates per \$1 million in insured limits. Average premium rates increased by 22% at current insurance renewals. Retentions also increased for many participants (this follows increases reported in last year's benchmark). The overall supply of insured limits is adequate to meet the demand for insurance protection. These observations are based on responses to the interim survey released by us in early 2021.

An Insurer's Insights on Medical Malpractice Loss Costs, Retention Levels and Premium Rate Adequacy

Sompo International has analyzed retentions and premium rates since 2010. Its study reveals that self-insured retentions (SIRs) and premium rates have not kept pace with increases in underlying exposures and inflation. Specifically, the average SIRs in 2019 were only 8% higher than in 2010 and lagged the growth of 16% in the overall inflation index as well as the 27% growth in claim costs in the same time frame. The average premium rate in 2019 was 16% lower than in 2010 despite a

35% increase in exposures. Sompo's analysis also confirms an increase in the incidence of claims exceeding \$10 million which are driving insured losses higher.

The Link Between Hospital Professional Liability Claims and Quality of Care

Beazley's analysis reveals that overall medical malpractice claim costs have been increasing by 5% annually since 2001. Its study also shows that hospitals with a CMS rating of 4 or 5 stars experience lower claim frequency but higher severity than lower rated facilities. The article provides recommendations for managing claim costs which include a strong culture of risk reporting, continuing the education of frontline providers, and launching well planned defenses during trials.

Healthcare Risk Management Characteristics

Our annual survey collected the number of full-time equivalents employed by the healthcare system risk management department. It revealed that 73% of participants employ one or more Certified Professionals in Health Care Risk Management (CPHRMs).

Cause of Loss Statistics

Benchmark participants provided text information describing the allegations underlying their hospital professional liability claims. An analysis was conducted to identify the most severe and most common cause of claims. Treatment Related Issues account for the highest percentage of claim occurrences as well as total claim costs while Labor and Delivery (L&D) Related Issues continue to be the most expensive cause of loss category.

Insurance Statistics

New to this report is a frequency, severity and loss rate benchmark comparison based on systems' usage of captives or risk retention groups.

Various Demographics

The cost of risk for hospital professional liability is subject to a complicated set of influences. We have analyzed and compared benchmark statistics by venue, for university systems, and for children's hospitals.

State Trends

Frequency, severity, and loss rate benchmark statistics are published separately for twenty two states. State breakouts by territory were also conducted for Florida, Illinois, and Pennsylvania as the data was sufficient enough to lend itself to credible actuarial analyses.

Advisory Benchmarks for Hospital Professional Liability

The database underlying this analysis includes 109 healthcare systems in the United States. The facilities in the study reported an annual total number of 194,751 occupied hospital beds (physical beds, not OBEs). The American Hospital Association's "Fast Facts on U.S. Hospitals" (2021 Survey) reports a total number of 919,559 staffed hospital beds in U.S. hospitals. Combined with an estimated 65.9% countrywide occupancy percentage (2017) provided by Statista, we estimate 605,989 occupied hospital beds in the U.S. Based on these statistics, our participant base represents 32% of the total U.S. hospital industry.

The following table shows the hospital professional liability frequency, severity and loss rate projections for claims that will occur in 2022. The severity and loss rate statistics shown are subject to a \$2 million per occurrence limitation.

2022 HPL Benchmarks and Annual Trends for Losses Limited to \$2 Million per Occurrence

Advisory Benchmark	Projected 2022 Benchmark	Selected Annual Trend
Overall Frequency*	1.56%	0.00%
Severity	\$219,000	3.00%
Loss Rate*	\$3,420	3.00%

^{*}per occupied bed equivalent

2022 Service Line Benchmarks for Losses Limited to \$2 Million per Occurrence

Advisory Benchmark	Exposure Basis	Projected 2022 Loss Rate	Annual Loss Rate Trend	Annual Overall Frequency Trend	Annual Severity Trend
Obstetrics	per birth	\$194	3.0%	0.0%	3.0%
Emergency Department	per visit	\$6.80	3.0%	0.0%	3.0%

Advisory Benchmarks for Employed Physician Professional Liability

Employed physicians represent a growing self-insurance risk for hospital systems. Employed physician claim and exposure data was collected and analyzed separately as a part of this benchmark analysis. The table below highlights the projected professional liability losses associated with employed physicians for accident year 2022.

2022 PPL Benchmarks and Annual Trends for Losses Limited to \$2 Million per Occurrence

Advisory Benchmark	Projected 2022 Benchmark	Selected Annual Trend
Overall Frequency*	3.76%	0.00%
Severity	\$125,000	3.00%
Loss Rate*	\$4,700	3.00%

^{*}per Class 1 equivalent

Advisory Benchmarks for General Liability

General liability claim data was also collected and analyzed separately as part of this benchmark analysis. The following table shows the projected general liability losses for accident year 2022. As seen below, general liability losses represent a small portion (approximately 4.5%) of the combined HPL and PPL loss rate.

2022 GL Benchmarks and Annual Trends for Losses Limited to \$2 Million per Occurrence

Advisory Benchmark	Projected 2022 Benchmark	Selected Annual Trend
Overall Frequency*	0.32%	0.00%
Severity	\$48,000	3.00%
Loss Rate*	\$154	3.00%

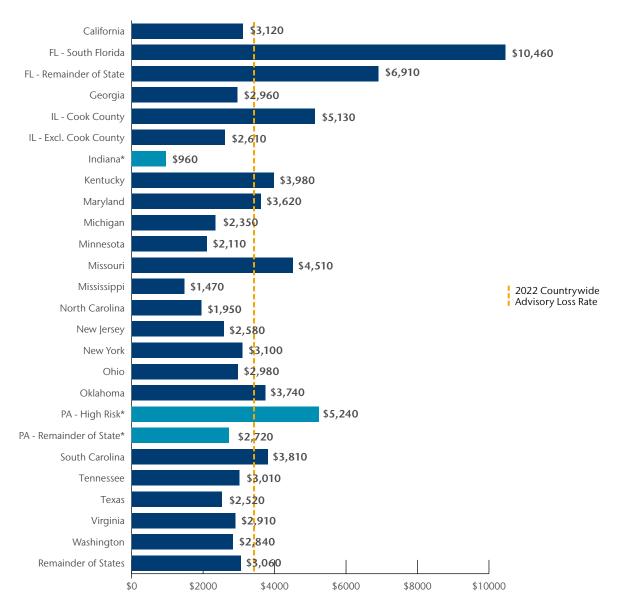
^{*}per occupied bed equivalent

State Findings for Hospital Professional Liability

The hospital professional liability benchmark database includes claims from 48 states, as well as the District of Columbia. As noted earlier, state specific actuarial analyses were conducted for those geographies for which credible amounts of data is available. Credibility was assessed by reviewing occupied bed equivalents, claim counts, and the volatility of the year-over-year results.

The table below shows the forecasted 2022 loss rates limited to \$2 million per occurrence for the individually reviewed states in this year's analysis. The dashed line represents the 2022 countrywide advisory loss rate (\$3,420).

2022 Loss Rates per OBE by State**



*All states limited to \$2 million per occurrence except IN and PA are limited to Patient Compensation Fund (PCF) primary limits: IN limits indemnity to \$500K plus unlimited expense; PA limits indemnity to \$500K plus unlimited expense

About Aon's Actuarial & Analytics Practice

Aon's Actuarial & Analytics Practice is the third largest
North American property and casualty consulting firm,
providing actuarial services to clients for more than 20 years.
Our international capabilities are matched by our strong
local presence that positions us to deliver timely results and
meaningful communication to every level of your organization.

Our practice is comprised of highly skilled and experienced professionals in the risk quantification and analysis field. We have more than 100 consultants and 50+ Fellows and Associates of the Casualty Actuarial Society. As part of Aon Global Risk Consulting, we are dedicated to expanding our solutions to help our clients effectively and proactively manage their risk in the current dynamic and challenging global economic market.

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