2017 Benchmark Study of Healthcare Professional Liability Claims
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Zurich is pleased to present our 12th annual Benchmark Study of Healthcare Professional Liability Claims. Our claims database is robust, including over $22 billion in losses and representing nearly 8 million exposure units in the healthcare industry.

Numbers require context, however, and that is what we strive to provide with each new edition of the Benchmark Study. The data presented in this publication offers meaningful insights on healthcare claims from hospital and outpatient care providers from all 50 states and the District of Columbia. Key findings from this year’s study:

• Claim frequency remains fairly stable, suggesting that this trend may continue through the next report year.
• Average claim severity continues to illustrate an upward trend of just under 6 percent from 2010 to 2014.
• As gleaned from previous Benchmark Studies, average severity for children’s hospitals and teaching hospitals remains significantly higher than for other facility types, despite their distinctly lower claim frequency.
• The ratio of expenses to indemnity has remained stable.
• New this year: A deeper analysis of medium and large losses (defined as losses with an ultimate value greater than or equal to $1 million). The significance of these losses cannot be underestimated in light of the consistent rise of claim severity year over year.

The healthcare sector continues to face the challenges of an ever-evolving industry. We understand that our customers must proactively deal with the risks that change can bring while serving the dual mission of providing high-quality patient care as cost-effectively as possible.

Our hope with this study, provided for your informational purposes, is to share the claims insights that can help you successfully navigate these sometimes daunting challenges. This publication is just one example of Zurich’s commitment to the healthcare industry, and we remain dedicated to providing comprehensive insurance solutions, claims management and risk services to our customers. We welcome any feedback on this year’s publication, and we look forward to discussing the insights shared in the following pages.

Thank you for your support of Zurich Healthcare.

Facts about the data

Zurich’s database contains 331,000 claims of which 105,000 are already closed with expense payment, indemnity payment or both. Additionally, there are 18,000 open claims that are expected to close with payment, bringing the estimated total number of “ultimate claims” to 123,000.

Of the 123,000 ultimate claims, there are almost 27,000 with total incurred of at least $100,000. We expect an additional 5,000 claims to breach this threshold, bringing the number of claims with at least $100,000 in total incurred to roughly 32,000.

There are $22.2 billion in losses from across the country, Washington, D.C. included. Factoring in development on open claims yields an additional $2.3 billion for a total of $24.5 billion in estimated ultimate losses. To limit much of the subjective component of claim evaluations, the 2014 year was used as the cutoff point.

Uncertainty

Although the database is very large, the results reported in this study have an inherent uncertainty because certain assumptions had to be made with respect to loss development and trends. These assumptions consider the long-tailed nature of many of the claims in the database and are unavoidable. However, they also open up the possibility that results could be quite different depending on the interpretation of the data by each individual reviewer.

Differences in results versus prior studies

Results reported in this study differ somewhat from previous years because of the volatile nature of claims and claim maturity. Additionally, these results are based on data collected from healthcare facilities seeking quotes for professional liability insurance from Zurich over the past year. Although a large portion of the submissions we receive from one year to the next are from the same facilities, this is not always the case. The mix of business included in this publication tends to vary from year to year.

Predictions

Estimates of future costs are limited by the ability to forecast the course of future events such as jury decisions, judicial decisions, legislative changes, public attitudes and social and economic conditions that may impact losses. In addition, state or regional results vary in credibility because of the amount of available data. Therefore, we provide no assurance as to actual future results.
What data goes into these dashboards?

Losses are developed to ultimate, brought to the same level via trend and then capped at $1 million each. All “ultimate claims” with dates of report from 2006 to 2014 are included. With the exception of these dashboards and the loss cost map at the back of the publication, none of the remaining graphs or analyses incorporate trend. The dashboards for acute care hospitals indicating results near the national average are partially driven by the data mix; acute care hospitals make up a large portion of the data set.

What does one exposure year look like?

- **Beds**: 320,000
- **Visits and procedures**: 491 million
- **Professionals**: 143,000

How much data is included in the study?

- **Losses**: $22.2 billion
- **Losses including development**: $24.5 billion
- **Occupied bed equivalents (OBEs)**: 7.9 million
- **Total claims**: 331,000
- **Claims expected to close with defense or indemnity payment or both**: 123,000

Why are some points darker?

The darker the point the more account observations we have for that particular mix of frequency and severity. For reference, the graphic to the right depicts around 90 percent of the accounts used for the study.

Visualizing claim metrics: How often, how expensive?

The severity of claims from teaching and children’s hospitals remains much higher than the national average claim severity, even after capping claims at $1 million each. This is not surprising given the relative nature of exposures in these types of facilities. Their relative claim frequency remains distinctly lower than acute care facilities. This may indicate stronger risk prevention programs in these types of hospitals, which could drive frequency down. Other factors, such as geographic location or patient mix, may also be impacting frequency.

What is our data mix?

The data available for our 2017 Benchmark Study is robust. This study is based on nearly 8 million occupied bed equivalents from thousands of locations across the country; it contains over $22 billion in ground-up undeveloped losses that we are able to parse out at an individual claim level. The underlying account mix that makes up our data set is also quite diverse.
Data fluctuations and a consistent message
Differences in historical figures are expected from one publication to the next. These differences may primarily be a result of:

- Movement in claim values, although mitigated by using a mature year as the cutoff (i.e., 2014 vs. 2017)
- Changes in the mix of submission data underlying each study

The Indexed National Average Severity graph compares the national average severity from this year’s publication to that of last year’s publication indexed to each of their respective 2006 values. The graph shows consistency in severity patterns between publications.
What is an ‘ultimate’ claim?
Throughout this publication you will see references to ultimate claims. An ultimate claim is one that is expected to close with indemnity payment, defense payment, or both.

Claim frequency
Overall frequency continues to be quite stable and our data suggest this may continue through the next report year with a projected frequency between 1.5 and 2 claims per 100 occupied bed equivalents. In last year’s publication we made a frequency projection for 2014. As seen in the graph below, the actual frequency came in slightly below expectations. This minimal difference could be reflective of the change in the account mix of this year’s submission database compared to last year, a difference in claim activity versus what was expected or a combination of the two. Claim frequency in Texas remains significantly below the national average; as noted in prior publications, the lasting impact of reform in Texas cannot be understated.

Why use an occupied bed equivalent (OBE)?
Using a standardized measure of exposure allows healthcare organizations to compare themselves against their peers. In order to use a standardized unit, several factors must be blended together.

Zurich’s proprietary relativity standardization allows us the ability to combine dozens of different exposure types into an occupied bed equivalent. These exposures can range from bed type such as acute care or long-term care to emergency room visits, laboratory services, physicians and professionals of varying specialties.
Closed-no-pay (CNP) claims and small non-zero closed claims

Since 2006, the percentage of claims that have closed with no payment has been fairly steady at just above 60 percent. In past Benchmark Studies, this percentage had historically been lower, at around 50 percent for report years prior to 2006. The uptick leading up to 2006 could have several potential causes: perhaps hospitals may be reporting more Potentially Compensable Events (PCEs) than previously. The steady nature of this percentage of CNP claims in recent years suggests that maybe an equilibrium has been reached.

In addition to looking at CNP claims, we have also found it useful to consider claims that have closed with a very small payment. Interestingly, the percentage of these small non-zero claims (below $1,000) has decreased over time, as the thinning width of the top section of the plotted area attests. At first glance, this “decrease” may be viewed as a positive to the industry, however, the inflationary impact on claim severity over time is a possible driving force, effectively pushing claims out of the “very small” category and into the next level.

Other professional lines

For the last nine years, about 60 percent of claims have closed with no payment. A closed-no-pay ratio of this general magnitude is consistent with observations seen in other professional lines.
Average claim severity

Average severity has increased steadily over the past several years. With respect to trends, the implied long-term average annual trend is right around 6 percent for the period from 2010 to 2014, compared to an average trend of 3 percent for the period from 2007 to 2010.

Illinois, New York and Pennsylvania versus the national average

Consistent with the findings in prior publications, these three states have an overall claim severity higher than the national average – in many cases significantly higher. Interestingly, Pennsylvania, which experienced a more significant increase from 2005 (not shown) to 2007 than the national average, has been relatively stable through 2012.

Of these three states, New York has experienced the largest severity trend at 10 percent over the period from 2010 to 2014.
Average claim severity: Profit status

Aggressive claim management, differences in case-mix index and patient populations could be contributing factors driving the lower average severity of for-profit hospitals. As shown by the trend lines in the graph below, not-for-profit hospitals continue to experience a higher severity trend than for-profit hospitals, which exhibit little to no trend.
Facility classifications
Zurich uses dozens of categories and subcategories to uniquely classify facility types. Having classifications at such a granular level creates the opportunity to perform deep-dive analyses and could prove important for future benchmarking. For publication purposes, we have rolled our facility categories into four classifications.

Average claim severity: Facility type
Children’s and teaching hospitals continue to have claim severities that are substantially higher than the national average severity. Absolute numbers have moved over time, perhaps partially driven by the mix of accounts in our database as well as changing claim values, but the overall message remains the same.

As emphasized in prior publications, providing lifetime care is a possible driving force behind the high severities in children’s hospitals. Teaching hospitals may be experiencing this as well, due to their exposure to high-risk obstetrics cases, which can result in lifetime care for injured neonates. These higher severities may be leveraged by the general interest rate environment (lower interest rates, higher present values of lifetime care, all else being equal).
Average claim severity: Community type

We continue to see that claim severity from facilities in urban areas is higher than those in rural and suburban areas. The spread between the two groups in terms of actual dollars has moved over time, but on a relative scale they are mostly stable, hovering around a ratio of 1.5.

How do we classify geographic areas?

Areas with populations of 200,000 or higher are considered urban. Those with fewer than 10,000 are considered rural and everything in between is considered suburban.
Expense component of claims with indemnity: National average versus acute care

The difference between the national average percentage of severity due to expenses and the same ratio from just acute care hospitals is stable. These values have not materially converged or diverged over the years evaluated in this publication, despite increased numbers of early-offer claims management programs.

Percentage of ultimate losses due to expenses for claims with an indemnity component
Medium and large claims: Moving at a similar pace

There has been no major change in the general pattern or trajectory of medium and large claims since our prior review. The raw number of medium and large claims relative to the total number of ultimate claims has both increased over time and at roughly the same pace.

Medium and large claims

Medium claims: 4 claims exceed $1 million per every 100 ultimate claims.

Large claims: 5 claims exceed $5 million per every 1,000 ultimate claims.
Are acute care claims increasing faster than expected?

Compared to last year’s publication, the percentage increase in acute care claims greater than $1 million has nearly doubled. We observed a 68 percent increase from 2006 to 2014 in this publication versus a 36 percent increase from 2005 to 2013 in last year’s publication. This change is largely driven by the 2006 report year. In both publications, the percentage of acute care claims greater than $1 million was low in 2006 compared to other report years. If we were to exclude 2006, the percentage increase would be 36 percent, in line with past publications.

Medium claims and facility type

Claim severities from teaching hospitals are higher than those from acute care hospitals as seen earlier. Looking at raw counts of claims greater than $1 million as a proportion of total ultimate claim counts can help shed light on severity drivers. Based on the graph below, the high severity of claims from teaching hospitals is driven by a large quantity of large claims per year rather than skewed by just a few very large claims. As compared to acute care hospitals, the pace of $1 million claims has increased faster over time for teaching hospitals. Although not shown below, teaching hospitals represent only 16 percent of the ultimate claim counts in our database — yet represent 25 percent of claims greater than $1 million. For acute care, the relationship is just the opposite, at 73 percent and 63 percent, respectively.

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### Percentage of ultimate claims greater than $1M

**Teaching hospitals vs. acute care hospitals**

- **Percentage of Claims Greater Than $1M (Acute Care Hospitals)**
- **Percentage of Claims Greater Than $1M (Teaching Hospitals)**

- **68% increase**
  - '06 – '14
  - 2006 to 2014
- **93% increase**
  - '06 – '14
  - 2006 to 2014

Report Year

- 2006
- 2007
- 2008
- 2009
- 2010
- 2011
- 2012
- 2013
- 2014
Medium and large losses: Taking a deeper look

New to this year’s publication is a deeper look at medium and large losses. In this data set, we have over 5,000 claims with an ultimate loss value greater than or equal to $1 million. While these claims represent just over 4 percent of total ultimate claims, in terms of loss dollars, these large losses amount to almost 60 percent of developed losses.

In addition, nearly 70 percent of the claims fall into the bucket from $1 million to $2.5 million. This percentage decreases to roughly 40 percent when looking at the loss dollars attributable to this set of claims. In contrast, losses greater than $5 million account for only 12 percent of the number of losses above $1 million, but account for almost 40 percent of the ultimate loss amounts.
Nationwide, average large claim severity exhibits little trend over the period from 2006 to 2014, compared to the roughly 5 percent trend seen with unlimited severity. Larger claims appear to be trending at a lower rate than small to mid-sized claims. It is worth mentioning that while severity is mostly flat on losses above $1 million, we have seen a slight uptick in frequency over this same period as evidenced by the Medium and Large Claims Exhibit on page 12.
Loss cost

Year over year changes in loss cost appear to be severity driven given the relatively benign movement in frequency. The implied annual trend in loss costs on an unlimited basis is approximately 3.6 percent from 2009 to 2014.

Implied average annual trends

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<tr>
<td>National average</td>
<td>4.9%</td>
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<tr>
<td>Claims limited to $1M each</td>
<td>5.5%</td>
<td>3.6%</td>
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Conclusion

Zurich continues to aggregate a significant amount of our healthcare claims data from across the country. We hope this information, combined with an organization’s individual loss history and qualitative information about risk management and patient safety programs, will serve as another tool to help advance your organization’s mission to improving patient outcomes and reducing total cost of risk. We look forward to providing additional insights to healthcare organizations as the industry continues to evolve in the future.
Claim frequency by state

Average claims frequency per 100 OBEs:

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<th>Below 0.62</th>
<th>0.73 to 1.06</th>
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Loss costs by state

### Average loss cost per OBE:

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<th>Below $981</th>
<th>$1,221 - $1,636</th>
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<th>$2,541 - $3,078</th>
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