

# Review of Proposed Amendment of Pennsylvania Rules of Civil Procedure Nos. 1006, 2130, 2156, and 2179: Governing Venue in Medical Professional Liability Actions in Pennsylvania

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## Executive Summary

In 2002-2003, a series of reform packages were enacted in Pennsylvania in order to address a growing crisis in medical malpractice (or medical professional liability (MPL)) insurance. These changes included changes in damage calculations, required safety committee/programs, a collateral source rule and venue reform, among others. The Supreme Court of Pennsylvania (“SCPA”) reformed the venue standard for MPL claims requiring claims be brought only in the county where the cause of action arose.

The Civil Procedural Rules Committee of the SCPA is considering a repeal of the current venue rule (known as the proposed amendment of Pennsylvania Rules of Civil Procedure (Pa.R.C.P.) Nos. 1006, 2130, 2156, and 2179). This amendment would reinstate the venue options available prior to the reforms.

Milliman, Inc., a global actuarial consulting firm, has been engaged to provide an analysis of the estimated impact on MPL costs and insurance rates of the proposed rule changes. Based on our review of publicly available documents such as physician insurance rate filings and data available from the SCPA, we estimate the impact of the proposed change to the venue rules for MPL claims to be as follows:

- **Statewide Impact:** The current average statewide MPL insurance costs and insurance rates for physicians in Pennsylvania will likely increase by 15%;
- **Local/County Impact:** Many individual counties will likely see increases in physician MPL rates of 5%, while counties surrounding Philadelphia will likely see larger increases of 45%;
- **Physician Specialty Impact:** High-risk physician specialties, such as Obstetrics/Gynecology (OB/Gyn) and General Surgery, will likely experience additional cost and rate increases of 17%, on top of the local/county change noted above.

These estimated increases are likely low, as our analysis did not account for the following items that could also increase MPL costs and rates:

- the impact of health care provider consolidation in recent years allowing easier access to any venue;
- an increased incentive to bring smaller borderline claims;
- a knock-on effect of potential higher verdicts and settlements on all areas of the state;
- higher defense costs as a result of venue change;
- potential increases to the MCare assessments; and
- higher rates due to uncertainty in pricing.

Note that while our analysis focused on the impact on physicians due to the limited time frame and data available for this analysis, we believe similar cost increases will affect other healthcare providers, facilities (such as hospitals and long-term care facilities) and entities within the state as well.

Besides the projected increase in MPL costs and insurance rates, additional consequences of changing the venue rules could include:

- Reduced availability of MPL insurance coverage; and
- Adverse impact on self-insured health care entities.

It is also important to note that while the tort reforms in place since 2003 have improved and stabilized the MPL insurance market in Pennsylvania, the MPL costs in Pennsylvania are still among the highest in the country. According to a 2018 Benchmark Study of Healthcare Professional Liability Claims performed by the Zurich Insurance Group, Pennsylvania consistently has the highest claim severity of any state.

## Scope and General Background

The following organizations are sponsors of our research and have requested that Milliman provide an analysis of the effect of repealing the venue reform, specifically the potential impact on MPL insurance rates on a statewide, county, and specialty basis:

- The Hospital and Healthsystem Association of Pennsylvania (“HAP”),
- Insurance Federation of Pennsylvania (“IFPenn”) on behalf of MedPro Group and NORCAL Group,
- Medical Mutual Insurance Company of North Carolina (“Medical Mutual”),
- the Pennsylvania Medical Society (“PAMED”),
- the Pennsylvania Coalition for Civil Justice Reform (“PCCJR”)
- the Pennsylvania Health Care Association (“PHCA”), and
- The Doctors Company (“TDC”).

This report includes the following:

- Discussion of the current venue rules for MPL, the reasons for the prior changes and the proposed changes;
- A quantitative analysis that evaluates the impact of the proposed change on MPL costs in Pennsylvania. The analysis includes a view on the impact on individual counties and physician specialties as well as the potential overall impact on the resulting insurance rates. (Note that for this report we have assumed that insurance rate changes correlate with the underlying costs of MPL liabilities.)

## Current Pennsylvania Venue Rules and Proposed Change

The Civil Procedure Rules Committee of the SCPA is reviewing a proposed amendment of Pa. R.C.P. No. 1006, 2130, 2156, and 2179 governing venue in medical professional liability actions. The proposed wording of the change to Rule 1006 is as follows:

- (a) Except as otherwise provided by subdivisions (b) and (c) of this rule, an action against an individual may be brought in and only in a county where:
- 1) The individual may be served;
  - 2) The cause of action arose;
  - 3) A transaction or occurrence took place out of which the cause of action arose;
  - 4) Venue is authorized by law; or
  - 5) The property or a part of the property, which is the subject of the matter of the action is located provided that equitable relief is sought with response to property.

The proposed amendment removes the following rule for MPL actions:

- Except as otherwise provided by subdivision (C), a medical professional liability action may be brought against a health care provider for a medical professional liability claim only in a county in which the cause of action arose.

The current venue rule for MPL claims that took effect in January 2003 and was part of a series of legislative and civil rules changes enacted to address the affordability and availability crisis for MPL insurance for healthcare providers in Pennsylvania peaking in 2001-2002.

## Summary of Findings

### Impact of Prior Change to Venue Rule – General Discussion

Prior to the reforms made in 2002-2003, the Pennsylvania MPL environment was one of crisis. Reforms were put into place both through legislation (e.g., Act 13 of 2002, MCare Act) and rule changes in the judiciary. Of all the changes enacted, venue change has been cited as having one of the more material impacts on cost. Because of the changes made in 2002-2003, there are some indisputable facts concerning the MPL insurance markets in Pennsylvania:

- Shift in Number of MPL Claim Filings by County – According to the data available from the SCPA website, for the time period between 2000 and 2002, the average annual number of MPL claim filings in Philadelphia County was over 1,200 while the average annual number of filings in Montgomery County was just over 20. The total number of MPL claim filings

in Philadelphia dropped to 577 in 2003 – after the venue rule change went into effect in January 2003 – while by 2004 the number of claims filed in Montgomery increased to over 100.

- Lower Physician MPL Insurance Rates – According to the Medical Liability Monitor, which provides an annual survey of MPL insurance rates by state, average physician rates in Pennsylvania have dropped by approximately 29% from 2004/2005 through 2018.
- Greater Availability of Insurance – The number and diversity of writers in the current Pennsylvania MPL insurance market have increased since 2002, with over 90 groups now providing coverage and no single writer with a market share over 12%, representing a stable and competitive market.

## Potential Impact of the Proposed Change in Venue Rules

To estimate the potential increase in MPL costs and insurance rates related to “undoing” the venue reform enacted in 2003, we reviewed the decreases in these same costs and rates resulting from the original venue reform. This approach assumes, as we believe to be true, that the proposed change will return the venue rules for MPL claims to the same as those in place prior to 2003.

Our work therefore assumed that the venue reform (as opposed to the other reforms enacted in 2002-2003) extended only to the distribution of claims among counties, not to aggregate changes in the number of claims. We believe this to be a conservative approach. It is more likely that rescinding these venue reforms will have an impact beyond returning to the previous distribution of claims by county and could impact the total number of claims and amount of costs due, for example, to the following:

- Impact of Consolidation – Our analysis is primarily based on estimating the benefits of the initial venue reform in 2003 and assuming they would be reversed as the reform is undone (i.e., the observed cost decreases would become increases). However, the healthcare provider environment has changed significantly since the time period of the initial venue rule change in 2003. Individual practitioners have joined physician groups, groups have been purchased by hospitals, and hospitals have merged into hospital systems. As a result of the greater interconnectedness of healthcare providers, there are fewer degrees of separation today than in 2002 from nearly any venue location. As a result, the impact of the change in venue rules could result in a much greater shift of claims to selected jurisdictions with higher costs resulting in a greater amount of cost increase from changing the venue rules than the decrease observed from the original change starting in 2003.

- Increased Incentives to Bring Borderline Claims - The determination to file a claim can sometimes result from an economic calculation of the potential payoff based on the probability of receiving a favorable verdict and the potential size of the verdict award. If, as a result of the proposed venue rule change, claims can be more easily shifted to venues where claims are more likely to receive a successful verdict and/or result in a higher award amount, it is likely that smaller, borderline claims not previously brought will be pursued, increasing the total number of claims and costs within the system.
- Knock-on Effect due to Precedents/Settlements - If, as a result of the proposed venue change, claims are shifted to areas where there is a higher probability of a favorable verdict for plaintiffs and for a higher award, there is the possibility of a knock-on effect on other counties due to the established precedents and settlements in the higher cost counties. This increase could impact all counties in the state.
- Higher Defense Costs - As claims shift to higher cost venues, the amounts spent in defense of these claims may be expected to rise. Costs could also increase due to travel and lodging costs for out of county witnesses and defendants.
- Potential Increases to the MCare Assessment – The potential higher probability of a favorable verdict for plaintiffs and for higher awards could result in an increase to MCare payouts and the corresponding assessments needed to fund the increased payouts.
- Higher Rates due to Uncertainty in Pricing – If the venue rules are changed, there will be uncertainty as to the impact of the change on statewide costs and rates and, in particular, on the territory differentials used for pricing. Insurers may add a margin to their rates to compensate for the additional risk they are taking on due to the uncertainty in determining adequate rates.

Due to the limitation on time and data available to prepare this report for presentation to the SCPA, these items, all of which would increase costs, were not accounted for in our indications. Therefore, our results may be viewed as being conservative or on the low end of the range of possible increases.

We developed a range of results to provide a sense of the uncertainty surrounding some of our assumptions and the sensitivity of the results to reasonable, alternative data sources, methods and assumptions. Our ranges, for statewide rates, county rates and specialty are provided in the tables below.

**Table 1**  
**Milliman Estimated Impact of Venue Changes on Average Statewide and Area MPL Rates**

Method	Indicated Average Statewide Rate Change	Indicated Area Rate Change
1	15.3%	1% - 47%
2	23.2%	—
Average	19.2%	1% - 47%
Selected	15.0%	5% - 45%

**Table 2**  
**Milliman Estimated Impact of Venue Changes on Specialty MPL Rates**

State/Region	Average Change in Relativity to Internal Medicine	
	OB/GYN	Gen Surgery
Maryland	92%	100%
New York	105%	133%
New Jersey	92%	117%
Ohio	94%	88%
Non PA Average	95%	110%
PA-Philadelphia	85%	83%
PA - Remainder of State	79%	83%
PA Average	82%	83%
Potential Increase	17%	32%



## Explanation of Methods and Assumptions – Statewide and County Impact

To estimate impact of the venue rule change on average statewide rates and territory rates, we relied on publicly available information from two main sources. These included:

- Physician Rate Filings for the Pennsylvania Professional Liability Joint Underwriting Association (PAJUA); and
- Medical Malpractice claim filings data from the SCPA.

Each of the sources relied upon has certain advantages and disadvantages but we believe the combined use of both the sources provides a reasonable view of the overall range of possible cost and rate increases. Each of the methods used is discussed below.

### *Method 1 – PAJUA Rate Filing Information*

To provide a view of the impact of the proposed venue change, we reviewed MPL rate filings for the PAJUA, the insurer of last resort for physicians in Pennsylvania. The advantage of using this information is that the territory relativities for the PAJUA were determined based on information provided by several market-leading insurers, increasing the credibility of the results. Also, the PAJUA's occurrence coverage rates are the "prevailing primary premium" used in calculating assessments for MCare. The disadvantage is that due to reliance on information from outside sources, the territory relativities for the PAJUA generally had a long lag before the improvement from the venue rules change were reflected in its results.

In order to increase the credibility of our indications, we aggregated the rate information into seven areas defined as follows and shown on Exhibit 1:

1. Philadelphia County
2. Counties Surrounding Philadelphia County
3. Allegheny County
4. Counties Surrounding Allegheny County
5. Lackawanna County
6. Counties Surrounding Lackawanna County
7. All Other

We determined territory relativities (representing the relative costs of each area to the base area (Philadelphia County)) by area at varying points of time prior to and after the venue reform and compared them to the latest relativities. We determined an overall average weighted relativity using a distribution of physician counts by area based on information provided by PAMED. The movement in the overall relativity by year is one possible indication of the change in the overall average statewide rate resulting from the change in venue rules.

The results using the PAJUA data are shown on Exhibit 2 and indicate that average statewide costs and rates would likely increase by 15-16% as shown in row (15). The impact by area indications in column (13b) show that most areas will likely increase by at least 5% with a 47% increase indicated for Area 2, the counties surrounding Philadelphia.

### *Method 2 – PA Supreme Court Data*

For our second method, we employed data made available by the Unified Judicial System of Pennsylvania, specifically related to medical malpractice case filings and jury verdicts. The advantage of using this data is that it allows a direct view on the impact on claim filings on a timely basis and includes claims not just related to individual physicians but also other healthcare providers and systems. The disadvantage is that only summarized data is available in regards to the cost of claims – i.e., verdicts are only provided in buckets (<\$500k, \$500k - \$1M, etc.).

On Exhibit 3, Sheet 1, we summarize MPL court filings by area by year for 2000 thru 2017. The impact of the reforms effective in 2002-2003 can be observed in the large drop in filings made between 2002 (2,904) and 2003 (1,712). In addition, the movement of claims between counties can also be observed on Exhibit 3, Sheet 2 that provides the distribution of the claim filings by area by year on a percentage basis. The increase in the distribution of claims in Area 2 (Counties surrounding Philadelphia County), Area 4 (Counties surrounding Allegheny County) and Area 6 (Counties surrounding Lackawanna County) starting in 2003-2004 is likely due to the venue reform.

Jury verdicts by award bucket grouped by area are provided on Exhibit 3, Sheet 3. We have summed the data provided for 2000 and 2017 in order to increase the credibility and stability of the information. As we did not have access to the actual severity of the claims in each award buckets, we made assumptions regarding the average awards within each bucket as shown in row (13). Based on the distribution of claims by bucket and the average award assumptions, we estimated the average award by area as shown in column (8). We then developed a weighted average of the awards based on the claim filing distribution from Exhibit 3, Sheet 1 as shown in columns (9) through (12). Using an assumed trend of 3%, we calculated average awards, row (14) and compared them as shown in row (15). The implied impact on the statewide severity due to the venue reform was a decrease of over 18% between the 2000-2002 average and 2017 (\$722,150 / \$889,508). This implies that if the venue rules were removed, average awards and their resulting costs and rates will likely increase by as much as 23% (\$889,508/\$722,150).

### Explanation of Methods and Assumptions – Physician Specialty Impact

To estimate the potential impact of the venue rule change on physician specialty, we examined the rates and relativities between the rates for the following specialties:

- Internal Medicine
- OB/Gyn
- General Surgery

We compared the rates for two of the higher risk physician specialties (OB/Gyn and General Surgery) since the initial venue reform in 2003 to the rates for Internal Medicine physicians in the same period. As there may have been improvements in risk management that impacted some specialties more than others across practices in the observed time period, we calculated this same relativity in neighboring states to Pennsylvania to observe if the change in relativity differed by state in this same time period. As provided in Table 2 above and Exhibit 4, Sheets 1 and 2, the rates for OB/Gyn physicians have decreased relative to the rates for Internal Medicine physicians by an average of 5% in many of the neighboring states while the relative decrease in Pennsylvania was 18%. This would indicate an additional 14% relative rate benefit from the 2002 changes featuring venue reform than experienced by other practitioners in neighboring states. Similarly, the relative rates for General Surgeons decreased by 17% in Pennsylvania as compared to an increase of 10% in neighboring states. This would indicate a potential additional rate benefit of 33% to General Surgeons from venue reform when compared to similar practitioners in neighboring states (the difference between a 10% increase compared to a 17% decrease). Conversely, it is implied that if the current venue rules were changed to those prior to the reform efforts, costs and rates for both O/B/Gyns and General Surgeons will likely experience additional increases of 17% or greater.

## Potential Unintended Consequences of Change to Venue Rules in Pennsylvania

In addition to the increased MPL costs expected to be incurred if the proposed venue change rules are enacted, there could be other potential unintended consequences. These include the following:

### *Reduced Availability of Insurance Coverage*

During the pre-reform crisis, many insurers left the market or reduced the amount of insurance they would provide in the state. Since the venue change in 2003, the MPL insurance market has somewhat stabilized. As noted previously, the proposed venue rule change would add additional uncertainty in the pricing of MPL insurance, particularly in regards to rates set by geographic territory. Besides increasing rates judgmentally until new territory differentials can be established, the increased uncertainty in pricing could result in insurers limiting future writings in the state or exiting the market entirely.

### *Adverse Impact of Self-Insured Health Care Entities*

If the change in venue rules impacts MPL claim costs as estimated in this report, this could affect any self-insured hospitals or other facilities to which costs accrue directly. These entities have benefited in recent years from the cost declines related to the tort reforms from 2003 while dealing with changes and decreases

in healthcare reimbursements. A sudden surge in unbudgeted MPL costs could affect the financial performance of these entities.

## Statement of Qualifications

Tom Ryan FCAS, MAAA of Milliman meets the actuarial qualification standards to provide this analysis.

## Limitations

### *Data*

In performing this analysis, we relied on publicly available data and other information. We have not audited or verified this data and other information. If the underlying data or information is inaccurate or incomplete, the results of our analysis may likewise be inaccurate or incomplete. In that event, the results of our analysis may not be suitable for the intended purpose.

We performed a limited review of the data used directly in our analysis for reasonableness and consistency and have not found material defects in the data. If there are material defects in the data, it is possible that they would be uncovered by a detailed, systematic review and comparison of the data to search for data values that are questionable or for relationships that are materially inconsistent. Such a review was beyond the scope of our assignment.

### *Uncertainty*

During the course of our review, we applied generally accepted actuarial procedures. However, due to the uncertainty involved in projecting future events, it is likely that actual results will vary from our projections, perhaps materially.

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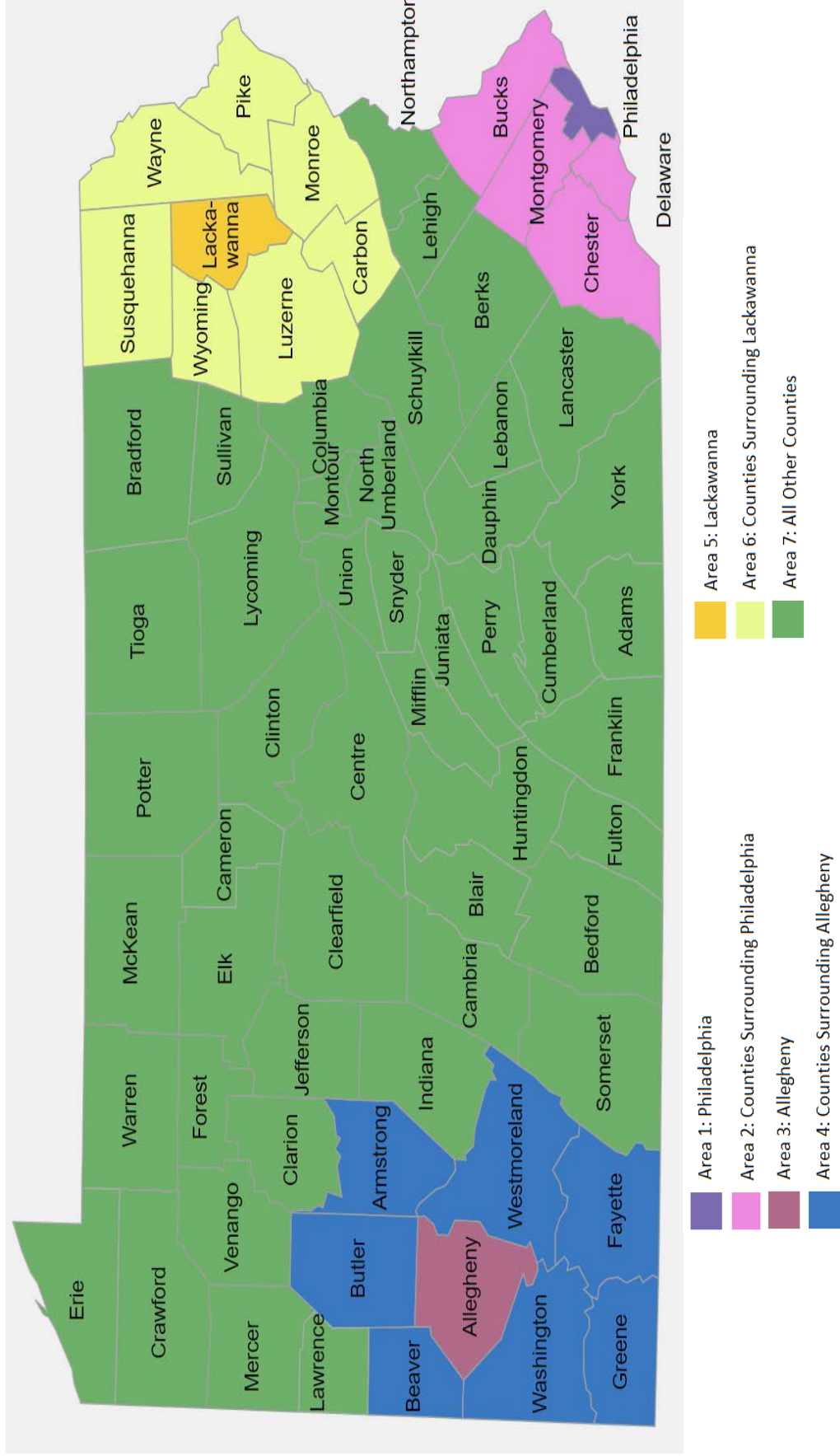
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# Area Definitions

# Exhibit 1



# Calculation of Effect on Territory Relativities with Elimination of Venue Rule Change

## Based on PAJUA Rate Filing Information

Exhibit 2

### Implied Territory Relativities

Based on PAJUA Rate Filing Information

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13a)	(13b)
Area	1/1/2001	1/1/2002	9/1/2002	9/1/2003	9/1/2004	1/1/2006	1/1/2008	1/1/2009	1/1/2010	1/1/2014	2016 Phys Count	(11) ÷ (6) - 1.0	(13b) (6) ÷ (11) - 1.0
	Territory Relativity (Relative to Area 1 - Philadelphia)												
1	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	6,807		
2	0.899	0.835	0.842	0.882	0.914	0.871	0.765	0.704	0.639	0.623	8,848	-32%	47%
3	0.522	0.522	0.550	0.600	0.600	0.600	0.506	0.480	0.480	0.554	5,846	-8%	8%
4	0.499	0.499	0.534	0.575	0.581	0.589	0.512	0.481	0.467	0.555	2,124	-5%	5%
5	0.750	0.750	0.800	0.850	0.900	0.850	0.598	0.598	0.580	0.806	537	-10%	12%
6	0.537	0.537	0.618	0.637	0.668	0.668	0.572	0.565	0.546	0.660	1,224	-1%	1%
7	0.496	0.494	0.562	0.584	0.593	0.593	0.519	0.498	0.477	0.509	12,450	-14%	16%

(14) Overall Wtd Avg Relativity: 0.736 0.748 0.738 0.643

(15) Indicated Statewide Change Should Pre-2003 Venue Rule Environment return

0.145	0.164	0.149
Average:		0.153

(1)	Area	Description
	1	Philadelphia
	2	Counties surrounding Philadelphia
	3	Allegheny
	4	Counties surrounding Allegheny
	5	Lackawanna
	6	Counties surrounding Lackawanna
	7	All Other

(2) - (11) Relationship of (Rate for Area x) ÷ (Rate for Area 1)  
 (12) Physician counts by county from PAMED 2016 Licensed Active Physician list.  
 (14) Weighted average of territory relativities with (12) used as weights.  
 (15) = [(14) for Year XX] ÷ [(14) for 1/1/2014] - 1.0

# Calculation of Effect on Average Statewide Claim Severity with Elimination of Venue Rule Change

Based on PA Supreme Court Data

## PA Supreme Court Filings

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
Filings																		
Area	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
1	1,085	1,162	1,365	577	559	540	569	586	553	491	381	418	389	382	382	381	378	406
2	200	176	176	92	255	269	246	238	217	199	205	213	234	236	224	272	263	250
3	390	372	426	272	297	324	301	262	275	263	326	293	281	296	278	245	271	224
4	149	149	149	110	113	126	107	88	86	82	105	210	133	130	112	125	110	105
5	71	69	55	34	31	35	35	30	36	33	37	36	30	27	22	47	34	29
6	56	61	53	60	96	54	59	64	73	69	52	81	45	76	64	66	68	65
7	681	670	680	567	468	363	387	373	362	395	384	424	398	413	430	394	417	370
Total	2,632	2,659	2,904	1,712	1,819	1,711	1,704	1,641	1,602	1,532	1,490	1,675	1,510	1,560	1,512	1,530	1,541	1,449

- (1) Area Description
- 1 Philadelphia
  - 2 Counties surrounding Philadelphia
  - 3 Allegheny
  - 4 Counties surrounding Allegheny
  - 5 Lackawanna
  - 6 Counties surrounding Lackawanna
  - 7 All Other

(2) - (19) Based on PA Supreme Court data. A filing refers to the commencement of a civil action by complaint or praecipe for writ of summons.



# Calculation of Effect on Average Statewide Claim Severity with Elimination of Venue Rule Change

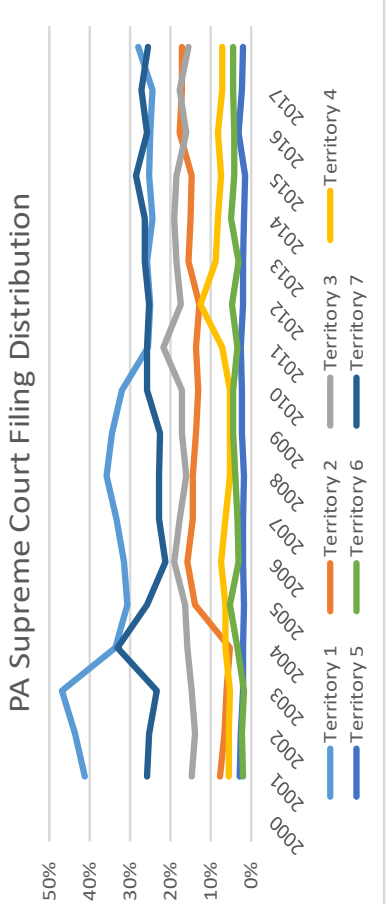
Exhibit 3  
Page 2

## PA Supreme Court Filing Distribution

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
Filing Distribution																		
Area	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
1	41.2%	43.7%	47.0%	33.7%	30.7%	31.6%	33.4%	35.7%	34.5%	32.0%	25.6%	25.0%	25.8%	24.5%	25.3%	24.9%	24.5%	28.0%
2	7.6%	6.6%	6.1%	5.4%	14.0%	15.7%	14.4%	14.5%	13.5%	13.0%	13.8%	12.7%	15.5%	15.1%	14.8%	17.8%	17.1%	17.3%
3	14.8%	14.0%	14.7%	15.9%	16.3%	18.9%	17.7%	16.0%	17.2%	17.2%	21.9%	17.5%	18.6%	19.0%	18.4%	16.0%	17.6%	15.5%
4	5.7%	5.6%	5.1%	6.4%	6.2%	7.4%	6.3%	5.4%	5.4%	5.4%	7.0%	12.5%	8.8%	8.3%	7.4%	8.2%	7.1%	7.2%
5	2.7%	2.6%	1.9%	2.0%	1.7%	2.0%	2.1%	1.8%	2.2%	2.2%	2.5%	2.1%	2.0%	1.7%	1.5%	3.1%	2.2%	2.0%
6	2.1%	2.3%	1.8%	3.5%	5.3%	3.2%	3.5%	3.9%	4.6%	4.5%	3.5%	4.8%	3.0%	4.9%	4.2%	4.3%	4.4%	4.5%
7	25.9%	25.2%	23.4%	33.1%	25.7%	21.2%	22.7%	22.7%	22.6%	25.8%	25.8%	25.3%	26.4%	26.5%	28.4%	25.8%	27.1%	25.5%

- (1) Area Description
- 1 Philadelphia
  - 2 Counties surrounding Philadelphia
  - 3 Allegheny
  - 4 Counties surrounding Allegheny
  - 5 Lackawanna
  - 6 Counties surrounding Lackawanna
  - 7 All Other

(2) - (19) Based on PA Supreme Court data. A filing refers to the commencement of a civil action by complaint or praecipe for writ of summons.



# Calculation of Effect on Average Statewide Claim Severity with Elimination of Venue Rule Change

## Average Jury Verdict by Area Based on 2000 - 2017 PA Supreme Court Data

(1) Area	(2) Defense Verdicts	(3) Award Bucket							(7) >\$10M	(8) Average Award by Area			(9) Filing Distribution		
		(4) <\$500K	(5) >\$500K, <\$1M	(6) >\$1M, <\$5M	(7) >\$5M, <\$10M	(8) >\$10M	(9) 2000	(10) 2001		(11) 2002	(12) 2017				
1	627	118	60	124	29	24	\$1,445,562	41.2%	43.7%	47.0%	28.0%				
2	598	43	19	32	4	4	383,904	7.6%	6.6%	6.1%	17.3%				
3	318	28	20	17	7	0	443,819	14.8%	14.0%	14.7%	15.5%				
4	188	22	7	7	2	1	373,484	5.7%	5.6%	5.1%	7.2%				
5	70	5	4	7	0	1	598,947	2.7%	2.6%	1.9%	2.0%				
6	122	14	5	6	4	0	459,741	2.1%	2.3%	1.8%	4.5%				
7	809	77	27	34	7	11	480,101	25.9%	25.2%	23.4%	25.5%				

(13) Average Award \$0 \$250,000 \$750,000 \$3,000,000 \$7,500,000 \$15,000,000

(14) Average Claim Severity: (Including 3.0% annual trend):  
Average: \$862,148 \$887,213 \$919,164 \$722,150  
\$889,508

(15) Indicated Statewide Severity Change Should Pre-2003 Venue Rule Environment return:  
Average: 0.194 0.229 0.273 0.232

(1) Area	Description
1	Philadelphia
2	Counties surrounding Philadelphia
3	Allegheny
4	Counties surrounding Allegheny
5	Lackawanna
6	Counties surrounding Lackawanna
7	All Other

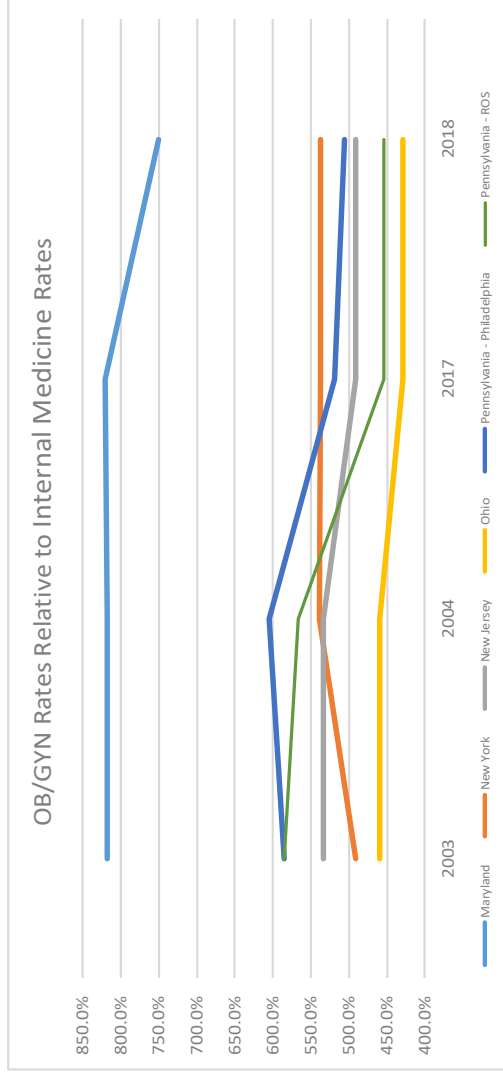
(2) - (7) Based on PA Supreme Court Filing data.  
(8) Weighted average of Row (13) using Columns (2) through (7), by area, as weights.  
(9) - (12) Based on PA Supreme Court Filing data in Exhibit 3, Page 1.  
(13) Judgmentally assigned.  
(14) Weighted average of (8) using distribution percentages in Columns (9) through (12).  
(15) = [(14) using 20xx distribution] ÷ [(14) using 2017 distribution] - 1.0

# Change in OB/GYN Relative to Internal Medicine Pre & Post 2003 Venue Rule Change

## Based on Medical Liability Monitor Annual Rate Survey Data

### Relationship of OB/GYN Rates to Internal Medicine Rates

(1) State	(2) 2003	(3) 2004	(4) 2017	(5) 2018	(6) $\frac{2003 \& 2018}{2004 \& 2018}$	(7) $\frac{2004 \& 2018}{2003 \& 2018}$	(8) Average
Maryland	818.0%	818.0%	820.0%	750.0%	91.7%	91.7%	91.7%
New York	491.3%	538.7%	537.2%	537.2%	109.3%	99.7%	104.5%
New Jersey	533.4%	533.2%	491.3%	491.3%	92.1%	92.1%	92.1%
Ohio	459.1%	459.1%	429.5%	429.5%	93.6%	93.6%	93.6%
Pennsylvania - Philadelphia	585.0%	605.3%	519.0%	505.9%	86.5%	83.6%	85.0%
Pennsylvania - ROS	585.0%	566.5%	453.6%	453.6%	77.5%	80.1%	78.8%



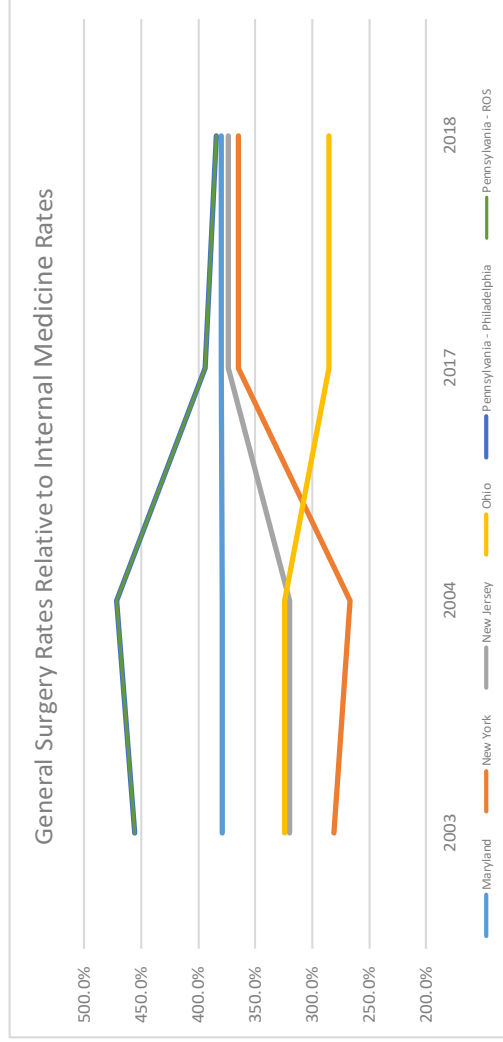
- (1) Rates were pulled from one writer by state as listed below:  
 Maryland: Medical Mutual Liability Insurance Society of MD  
 New Jersey: Princeton  
 New York: MLMIC  
 Ohio: Medical Assurance (ProAssurance)  
 Pennsylvania: Norcal (PMSLIC) - Excl MCARE premium
- (2) - (5) Relationship between OB/GYN Rates and Internal Medicine Rates  
 (6) = (5) ÷ (2)  
 (7) = (5) ÷ (3)  
 (8) = Average of (6) and (7)

# Change in General Surgery Relative to Internal Medicine Pre & Post 2003 Venue Rule Change

## Based on Medical Liability Monitor Annual Rate Survey Data

### Relationship of General Surgery Rates to Internal Medicine Rates

(1) State	(2) 2003	(3) 2004	(4) 2017	(5) 2018	(6) $\frac{2003 \& 2018}{2004 \& 2018}$	(7)	(8) Average
Relationship between:							
$\frac{2003 \& 2018}{2004 \& 2018}$							
Maryland	379.0%	379.0%	380.0%	380.0%	100.3%	100.3%	100.3%
New York	281.4%	266.6%	365.0%	365.0%	129.7%	136.9%	133.3%
New Jersey	319.5%	319.5%	373.9%	373.9%	117.0%	117.0%	117.0%
Ohio	324.4%	324.4%	285.3%	285.3%	88.0%	88.0%	88.0%
Pennsylvania - Philadelphia	456.0%	471.1%	393.7%	384.5%	84.3%	81.6%	83.0%
Pennsylvania - ROS	456.0%	471.1%	393.7%	384.5%	84.3%	81.6%	83.0%



- (1) Rates were pulled from one writer by state as listed below:
- Maryland: Medical Mutual Liability Insurance Society of MD
  - New Jersey: Princeton
  - New York: MLMIC
  - Ohio: Medical Assurance (ProAssurance)
  - Pennsylvania: Norcal (PMSLIC) - Excl MCARE premium
- (2) - (5) Relationship between OB/GYN Rates and Internal Medicine Rates
- (6) = (5) ÷ (2)
- (7) = (5) ÷ (3)
- (8) = Average of (6) and (7)