

White Paper: Calculate the Return on Investment From External Peer Review

For Hospital Groups, ASC's and Specialty Medical Facilities Nationwide

Introduction

According to the 2010 Hospital Professional Liability and Physician Liability Benchmark Analysis, hospitals and physicians should prepare for steadily increasing liability costs in the future. Loss rates, which measure the total cost of medical malpractice claims per hospital bed, are expected to grow 5% annually. In 2011, hospitals are expected to experience a rate of \$3,280, which reflects a \$150 increase from 2010's expected rate of \$3,130 and a \$300 rise from 2009's rate of \$2,980. This recent study from Aon Risk Solutions and the American Society of Healthcare Risk Management (ASHRM) confirms that claims against hospitals have entered a growth phase, in which both the frequency and the severity of claims will increase. The analysis found that claim severity (indemnity and claim-related expenses) is increasing at a consistent rate of 4% annually, and hospital professional liability claim frequency is growing at a rate of 1% annually. In addition, liability costs are expected to increase at a rate higher than general inflation.

These findings, along with the uncertainties associated with healthcare reform and the current economy, place pressure on hospitals to undertake more aggressive risk management methods focused on the reduction of medical errors by improving physician performance.

External Peer Review Improves Physician Performance and Reduces Medical Errors

When properly executed, external peer review can reduce medical errors by consistently providing objective feedback to physicians and by identifying performance-enhancing corrective actions for them and for hospital operating and/or training processes. This increased transparency and accountability associated with external peer review leads to improved quality of care and patient safety and, over time, will reduce a hospital's professional liability claims and costs.

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A recent RAND study showed a highly significant correlation between the frequency of adverse events and malpractice claims. It found that, on average, a hospital that shows a decrease of 100 adverse events in a given year will also see a 37% decrease in malpractice claims. Likewise, a facility that shows an increase of 100 adverse events in a given year will also see, on average, a 37% increase in malpractice claims.

In addition to untenable loss ratios, increased malpractice claims against a hospital can have many negative consequences, including:

- ▶ Lost revenue
- ▶ High-profile lawsuits
- ▶ Sanctions by federal agencies and other public organizations
- ▶ Fines
- ▶ Negative publicity
- ▶ Management shake-ups
- ▶ Loss of investor confidence
- ▶ Damage to physicians' careers and practices
- ▶ Loss of accreditation

External peer review can play a key role in reducing or eliminating these risks. It can also directly lower the cost of delivering quality care, with the biggest impact being in high-risk surgical specialties such as cardiology, neurology, orthopedics, obstetrics, and emergency medicine. When implemented proactively and systematically to measure and monitor practitioner performance, external peer review helps hospitals discover, highlight, and deal with physician performance issues quickly and efficiently, before they turn into claims.

Investing in ongoing external peer review can provide a hospital with a financial return on investment, which, up until now, could not be universally calculated.

A New Return On Investment (ROI) Model for External Peer Review

Overview

Based on the benchmark data published by Aon and ASHRIM, this new ROI model helps hospitals determine the financial payback associated with ongoing external peer review and is based on an institution's unique characteristics, which vary by size and geography. The model, which calculates the hospital's professional liability and physician liability, relies on the assumptions that the hospital is primarily self-insured (with some level of reinsurance) and that reducing malpractice claims reduces losses/accruals. In addition, it is based on the premise that ongoing external peer review reduces medical errors, thereby reducing liability.

The ROI model's calculations require only straightforward data, such as the hospital's number of:

- ▶ Staffed acute care beds
- ▶ Emergency department visits
- ▶ Surgeries
- ▶ Births
- ▶ Employed physicians

It eliminates the timely process of gathering malpractice claims data, which may be scattered or tightly held due to medicolegal issues. The figures are entered into a model to estimate the cost savings associated with external peer review.

For hospitals that have readily available actual annual loss data, the process is made even simpler, since the data can be entered directly into the ROI calculator.

A Sample Case Study Starts on the Next Page

Calculate the Return on Investment From External Peer Review

How the Model Works: A Sample Case Study

This section will walk you through the steps for calculating the ROI for a midsize hospital. (Please see Appendix A for a more detailed description of the model.)

O = total acute care bed equivalents

$(Acute\ care\ beds \times ECF) + (ED\ visits \times ECF) + (Inpatient\ surgeries \times ECF) + (Outpatient\ surgeries \times ECF) + (Births \times ECF)$

ECF = exposure conversion factor; weights hospital professional liability.

Hospital Acute Care Bed Equivalent Calculation	Number		Estimated Conversion Factor		Acute Care Bed Equivalents
Acute Care Beds (staffed)	150	X	1.000	=	150
ED Visits	45,000	X	0.0023	=	104
Inpatient Surgery	5,600	X	0.0240	=	134
Outpatient Surgery	11,000	X	0.0013	=	14
Births	550	X	0.0610	=	34
Total Acute Care Bed Equivalents					404

PE = Hospital-employed physician equivalents

$(Acute\ care\ specialty\ A \times PR) + (acute\ care\ specialty\ B \times PR) + (acute\ care\ specialty\ C \times PR)$

PR = physician relativities; weights relative risk by specialty and should include nonemployed physicians, if any, for whom the hospital pays for professional liability coverage

Hospital Employed Physician Equivalent Calculation	Number		PR		Physician Equivalents (PE)
Internal Medicine	50	X	1.000	=	50
Emergency Medicine	12	X	2.000	=	24
OB/GYN	6	X	4.500	=	27
General Surgery	10	X	3.300	=	33
Cardiac Surgery	0	X	4.000	=	0
Neurosurgery	0	X	6.500	=	0
Total (PE)	78				134
Average Conversion Factor			1.787		

Calculate the Return on Investment From External Peer Review

L = hospital professional liability + physician liability losses (i.e., HPL + PL)

- ▶ Step 1: PE x (ASHRM risk conversion factor)
- ▶ Step 2: (Results from Step 1) + O = OBE = occupied bed equivalents
- ▶ Step 3: (OBE x 2010 benchmark loss cost per OBE) x (state/county adjustment factor) = 2010 benchmark estimated loss

Summary of Hospital Professional Liability	Number		ASHRM Risk Conversion Factor		Occupied Bed Equivalents
Acute Care Bed Equivalents					404
Physician Equivalents	134	X	2.7500	=	369
Total Occupied Bed Equivalents (OBE)					773
2010 Benchmark Loss Cost per OBE					\$3,280
State/County Adjustment Factor					1.2
2010 Benchmark Est. Loss					\$3,042,528

M = estimated percent reduction in malpractice claims/accrual
A x Rand study coefficient

Assume A, the estimated reduction in adverse events from external peer review = 10%;
 Rand study coefficient, a reduction in 10 adverse events leads to a decrease of 3.7 malpractice claims

Est. % Reduction in Adverse Events (A)		RAND Coefficient		Est. % Reduction in Malpractice Claims (M)
10%	X	0.37	=	3.70%

Potential Total Savings From Reduced Claims = M x L

(Calculated by using number of occupied bed equivalents and physician equivalent calculations.)

Est. % Reduction in Malpractice Claims (M)		Annual HPL + PL Loss (L)		Potential Total Savings from Reduced Claims
3.70%	X	\$3,042,528	=	\$112,574

Calculate the Return on Investment From External Peer Review

S = Annual net savings in HPL/PL to hospital
 (Potential Total Savings From Reduced Claims) – (E)

E = Annual expenses associated with ongoing external peer review)

\$112,574	(Potential Total Savings from Reduced Claims)
- \$50,000	(E = Cost of Ongoing External Peer Review)
\$60,470	(Annual Net Savings to Hospital)

Potential Total Savings		Cost of Ongoing External Peer Review		Payback Ratio
\$112,574	/	\$50,000	=	2.25

Conclusions

AllMed’s ROI model is a scientifically-based formula that serves as a framework to estimate the quantitative benefits associated with ongoing external peer review. It is straightforward and easy to use, and requires just under an hour for gathering and inputting data. The financial payback on an investment in ongoing external peer review results directly from the reduction in professional liability costs over time. In addition to the long-term financial benefits, a well-executed external peer review program brings qualitative improvements to many areas, including physician performance and the quality of care, as well as improved reputation and improved staff/physician retention.

About AllMed

Founded in 1995, AllMed is a URAC-accredited independent review organization (IRO) providing external peer review services to leading hospital groups, ASCs, and specialty medical facilities nationwide. More than 400 licensed and board-certified physicians in active practice conduct AllMed’s evidence-based medical reviews.

Move from compliance to high performance, with PeerScore^(sm) services from AllMed. PeerScore offers a complete solution for focused and ongoing professional practice evaluations (FPPE and OPPE). Rather than using external peer review to react to negative events, PeerScore ensures a proactive, systematic, and evidence-based appraisal of credentials, privileges, sentinel events and sensitive performance issues.

Bibliography

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Greenberg MD, Haviland AM, Ashwood JS, Main R. *Is Better Patient Safety Associated With Less Malpractice Activity?* Santa Monica, Calif: Rand Institute for Civil Justice; 2010.

Professional liability costs for hospitals and physicians continue to rise, outpacing inflation. [Press release.] Chicago, Ill: Aon Corporation; October 12, 2010.

Appendix A: A Detailed Description of the Model

Variables and Calculations

The ROI model's variables take into account the geographic differences among hospitals in the number of beds, services, and types of physicians, while the conversion factors—derived from the Aon/ASHRM report and the RAND study—weight hospital professional liability and risk by specialty, based on these variables.

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ECF = exposure conversion factor; weights hospital professional liability.

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$(Acute\ care\ specialty\ A \times PR) + (acute\ care\ specialty\ B \times PR) + (acute\ care\ specialty\ C \times PR) \dots$

PR = physician relativities; weights relative risk by specialty and should include nonemployed physicians, if any, for whom the hospital pays for professional liability coverage.

L = hospital professional liability + physician liability losses (i.e., HPL + PL)

- ▶ Step 1: PE x (ASHRM conversion factor)
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M = estimated percent reduction in malpractice claims/accrual

$A \times Rand\ study\ coefficient$

Assume **A**, the estimated reduction in adverse events from external peer review = 10%;

Rand study coefficient, a reduction in 10 adverse events leads to a decrease of 3.7 malpractice claims

Potential Total Savings From Reduced Claims = **M x L**

(Calculated by using the number of occupied bed equivalents and the physician equivalent calculations.)

S = Annual net savings in HPL/PL to hospital

$(Potential\ Total\ Savings\ From\ Reduced\ Claims) - (E)$

E = Annual expenses associated with ongoing external peer review)

Payback ratio (ROI) = $(Potential\ Total\ Savings\ From\ Reduced\ Claims)/E$

The model can also be adjusted for different levels of coverage and reinsurance.