

Know Your Exposures: Scenario Planning to Manage Enterprise Risks

2007 SOA Health Spring Meeting
June 14, 2007



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What is ERM?

- “ERM is the discipline by which an organization in *any industry* assesses, controls, *exploits*, finances and monitors risks from *all* sources for the purpose of increasing the organization’s short- and long-term value to its stakeholders.”

Source: CAS Committee on Enterprise Risk Management, May 2003 report: (KLC italics)



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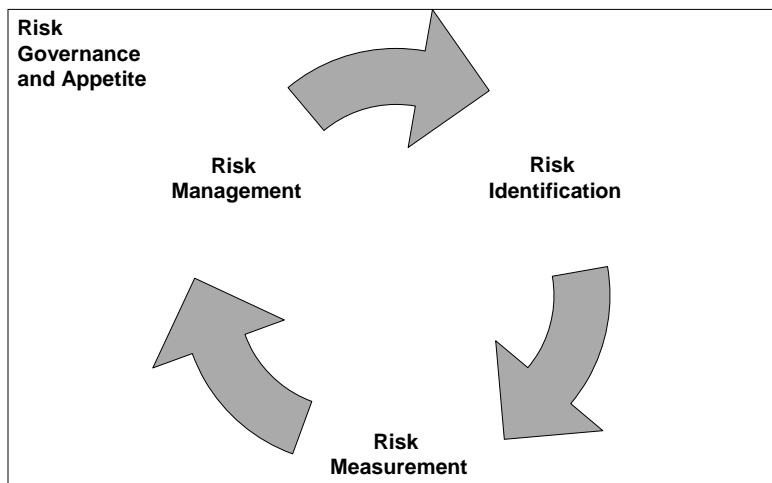
ERM's Value Proposition

- Risk opportunities
- Robust risk intelligence information
- Alignment of incentives
- Cost reduction
- Better coordination

Source: *Risk Management* (newsletter of the Risk Management Section), March 2004



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Scenario Planning: What if....?



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Presenters

Mark Jamilkowski, FSA, MAAA

Deloitte

Sudha Shenoy, FSA, MAAA

Aetna

Moderator/Facilitator

Kara Clark, FSA, MAAA

Society of Actuaries



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Agenda

- Overview of scenario planning
- Hypothetical example of scenario planning
- Your turn! Group discussion of a hypothetical case



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Scenario Planning and Enterprise Risk Management

**SOA Health Actuarial Annual Meeting
Seattle**

Mark Jamilkowski, FSA
Deloitte Consulting
June, 2007

Scenario Planning and ERM

ERM and Actuarial Roles

Actuary as Lead in Evaluating Risk Drivers

Recapping the Opportunity

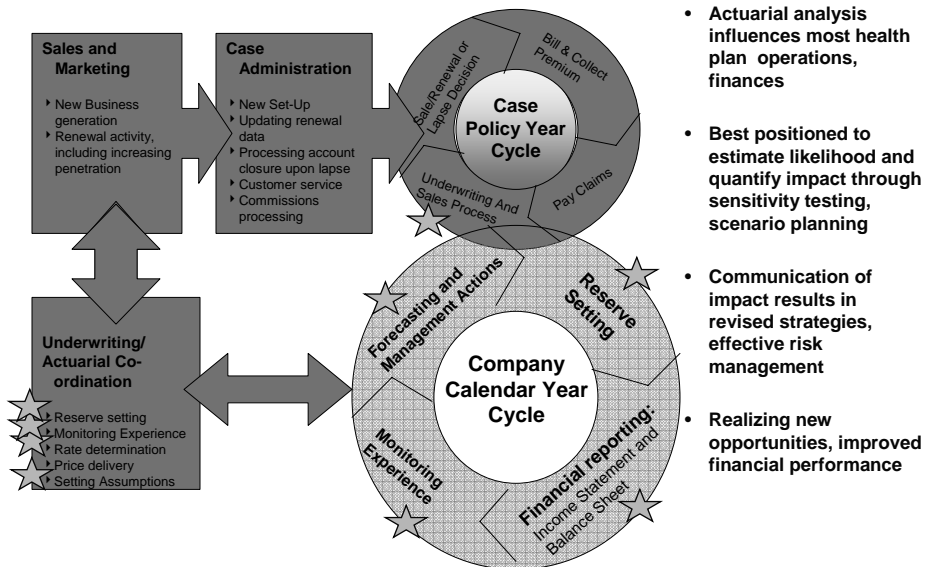
Enterprise Risk Management in Health Plans

Scenario Modeling and the Actuary

- ERM touches the whole organization; all processes and functions need to be considered
- Modeling scenarios require knowledge across functions
- Modeling scenarios require understanding sensitivity to functional shocks, which determines variable predictive value
- Actuarial roles and responsibilities intersect with almost every function of the health plan
- We, as actuaries, cannot be passive

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Actuarial Roles Intersect Across Functions



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Actuaries Identify, Understand, and Model the Risk Drivers

- **Internal Drivers** such as systems and/or data integrity, marketing, clinical operations and product development strategy, emerging cost management initiatives
- **External drivers** such as Medicare/Medicaid cost shifting, competitor actions, macroeconomic cost trends – technology, et al; regulations and consumerism, management responsiveness
- **Cross-matrix Internal and External drivers with Operational and Financial Drivers**

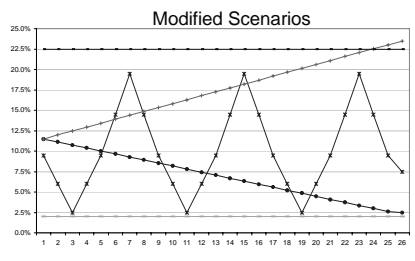
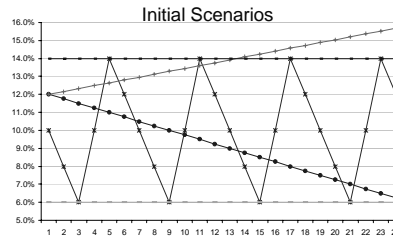
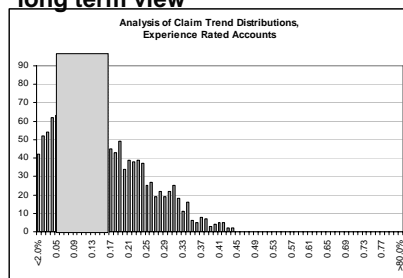


Actuaries Taking the Lead

- **Lack of consensus around process and tools to evaluate enterprise risks**
- **Professional opportunity to step in and fill the void**
 - Behavior modeling – segmenting to promote better patient engagement, marketing and lapse likelihood
 - Predictive modeling – better understand correlations in integrated data, e.g. medical, pharmacy, disability, hospice, long term care, etc.
 - A change in one assumption creates a ripple effect throughout organization
 - Timing of organization's response
- **Giving management better information**
- **Fighting common perceptions and misconceptions**

An Example of How Perception Spoils

- Initial range of scenarios based on experience and “common perceptions”
- Captured only 20% of likely outcomes
- Modified scenarios get 60%
- Greater volatility than initially thought
- Weighted expectation still matches long term view



Scenario Dynamics

- ERM analysis builds on and expands RBC considerations
- Principle-based reserving techniques are also correlated
- So Basic tools are being built
- Must also build the complicated combinations, from “Utopia” to the “Perfect Storm”, not just best estimates.
- Need to develop an enterprise portfolio view of risks to know which risks are positive vs negatively correlated for better management of risks
- Structure should be flexible and transparent, allowing for timely analysis and accountability

A Professional Opportunity, A Business Opportunity

- **Help the organization realize new opportunities, and minimize risks**
- **Enable proactive management with improved insight**
 - Bring operations, finance, others together for a holistic view of enterprise risk
 - Optimize capital budget through better surplus allocation and risk assessment
 - Maximize financial objectives by identifying highest probability path to success
 - Realize new business opportunities by analyzing ERM gaps, and competitors actions
- **Improve accuracy of projections, manage expectations**
 - Improved understanding of variability; forecast becomes a proactive tool
 - Action plans address risks, opportunities; path to success more transparent and therefore more achievable
- **Build Credibility Through Consistency**
 - Identifying, understanding and proactively managing risk
 - Accurate guidance is highly valued by analysts, management, and Board
 - Value added regardless of whether results are positive or negative

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A Call to Arms

- **ERM is an emerging but important transformation in how risk is perceived and analyzed.**
- **Failure to act will lead to sub-optimal results, greater regulatory oversight, and marginalization of the actuarial role in your organization.**
- **What you can do now**
 - Leverage current planning, forecasting meetings
 - Evaluate communications links across your organization's function
 - Champion the reporting and analysis of key performance metrics and other risk-monitoring criteria
 - Use your actuarial scenario modeling skills

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Session 37 PD

Sudha Shenoy, FSA



Scenario Planning - Example

Your company is planning to enter the Medicare Advantage market. Your company is a midsize local company with presence in a tri-state area. You have reasonable presence in the Medicare Supplement area. You currently have no Medicare Advantage products nor are you offering a Medicare Part D product.

Other Assumptions: Strong provider networks, good contracting capability, desire to grow this line of business using the Medicare expertise from Medicare Supplemental products.

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Scenario Planning - Example

Broad Outline of Risk Management Technique

- Risk Identification – Identify new market risks
- Risk Measurement – Quantitative risk measures
- Risk Monitoring – Monitor risk by tracking key metrics (actual vs. expected)

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Scenario Planning - Example

What are your risks?

- Environmental Risk
- Financial Risk
- Operations Risk
- Pricing Risk
- Reputation Risk
- Market Risk

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Scenario Planning - Example

Environmental Risk

- Competitive Environment - need to assess products & pricing of existing products
- Geographic Area - select counties in which products will be offered
- Provider Contracting - good quality hospital & physician networks at affordable contracting terms
- New market risks- ability to complete all the necessary tasks in order to launch new products successfully

Financial Risk

- CMS Reimbursement - accurate forecasting of revenue stream, ability to capture and transmit data
- Financial Proforma - first year start up costs, accurate assumptions for claims, sales and administrative expense

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Scenario Planning - Example

Pricing Risk – selection of pricing assumptions – cost of care trends, assess risk profile of enrollees, accurate benchmark data. Forecast CMS revenue stream and complete rate filings.

Operational Risk – Successful in operational issues – timely and accurate payment of claims, compliance .

Reputational Risk – Carrier of other products, quality of provider network, ability to deliver good products and offer an attractive portfolio. Consistency and stability in the marketplace.

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Scenario Planning - Example

New Market Risk

- Acceptance in the marketplace for new MA product
- Good product philosophy & portfolio
- Ability to implement all components of an MA program successfully in the MA market space
- Provider network & sales force to support new product

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Scenario Planning - Example

Other Major Issues

- Short timeline to filing
- Product expertise needed to launch a managed care product
- Unique issues associated with a Medicare product – revenue based on risk profile of members and claim cost categories

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Scenario Planning - Example

Other Major Issues

- Future funding issues – scenario planning for risk mitigation during the forecasting process
- What kind of planning process should you follow on an ongoing basis?
- How do you define success?
- Exit Strategy if you need one – Established carrier in Senior Markets – how can you accomplish this successfully? What are your triggers?