Effect of Medical Cost Changes on the Calculation of Liability

Jed Linfield, FSA, MAAA
United Healthcare

Session Number: TBR6

Joint IACA, IAAHS and PBSS Colloquium in Hong Kong
www.actuaries.org/HongKong2012/

Organization of Presentation

- Effect of Changes on Liability
  - Calculation Issues
  - Management of the IBNR Process

Effect of Medical Cost Changes on the Calculation of Liability

Valuation Actuary's Role in Changing Environment

- Potential for greater restatement
- Harder for 2 actuaries to produce very close results
  - Peer review
  - Auditors
- Greater need for statement of
  - Environmental factors
  - Potential for restatement
- With Minimum Loss Ratio (MLR) requirements, limits on increasing margin to cover uncertainty (USA)

Effect of Medical Cost Changes on the Calculation of Liability

Environmental Change

- Trend
  - Not always positive, especially in government programs

- Benefits
  - More preventive care coverage
  - High deductible plans

- Providers
  - Changing income form government plans

- Claim Payment Speed

Effect of Medical Cost Changes on the Calculation of Liability

Change in Trend

- Trend models for recent months less predictive
  - Rely more on actuarial judgment
  - Limited utility in over-refining trend models

Effect of Medical Cost Changes on the Calculation of Liability

Change in Benefits

- Increased preventive care benefits
  - Decreased long term costs vs. increased short term cost
- High deductible plans
  - Shifting relative cost by month

Effect of Medical Cost Changes on the Calculation of Liability

Provider Income

- If you reduce reimbursement on some services/products, will there be increased cost in other products/services?

- Effect on network

Effect of Medical Cost Changes on the Calculation of Liability

Claim Payment Speed

- With new claim processing system, may first experience slower payments, than faster payments

- The longer the uneven claim processing issues, the greater the issue for valuation actuaries

Effect of Medical Cost Changes on the Calculation of Liability

Membership shift

- A gradual shift suggests an underlying trend

- A rapid shift requires actuaries to get more market knowledge

Effect of Medical Cost Changes on the Calculation of Liability

Works on Calculating IBNR

- Lynch, “Gerbils on Espresso”
- Gamage, Et. Al.
- Chadick, Et. Al.

Management Problems of Calculating IBNR

- You can’t put a confidence interval in a balance sheet.

- All models are wrong; some models are useful. (Jim Mange)

Easy Access to Data and Software Tools

- Are spreadsheets best for monthly IBNR calculations?

- How do you evaluate alternate models and calculations?

Effect of Medical Cost Changes on the Calculation of Liability

Improvements to IBNR Calculations

- Limits of Models
  - Actuarial judgment is almost always essential when recent market changes occur
  - Example: Completion factor method

- Better Data

- Use different type of model

Effect of Medical Cost Changes on the Calculation of Liability

How Fine Do You Divide Your Data?

- Statutory Limitations
- Size
- Similarity in completion factors
- Market knowledge

Effect of Medical Cost Changes on the Calculation of Liability

Margin

- Sometimes level of margin hard for non-actuaries to understand

Effect of Medical Cost Changes on the Calculation of Liability

Work Being Audited

- Communication of work
- Following methodology
- Actuarial judgment

Effect of Medical Cost Changes on the Calculation of Liability

Job Performance Evaluations

- Problem: A "boring" valuation process does not headline the valuation actuary's work.

Effect of Medical Cost Changes on the Calculation of Liability

- Questions?

Effect of Medical Cost Changes on the Calculation of Liability

Exercise

- In groups from different countries, name 2 similar problems and 2 different problems that are encountered when applying valuation models (or health pricing models) to actual business situations.