Health and Benefits

Health and benefits actuaries often have to analyze past medical trends in order to model future claim costs for their clients. It is crucial to make accurate predictions of these costs because each client needs to budget future healthcare costs into their overall expenditures for next year. Given your company's claims data from 2012 to early 2015, your task is to make predictions for future claims costs.

1. **Briefly explain the concept of incurred but not reported (IBNR) losses. Why is it important for insurance companies to get an accurate estimate of IBNR?**

2. **Using the claims data provided in the "Health Data" spreadsheet, construct a loss triangle for 2012-2015 and estimate the IBNR. You may choose any method commonly used in the actuarial industry.**

3. **Analyze the medical trend and seasonality from 2012 to 2015 in order to estimate the average cost per enrollee per month (PEPM) for the rest of 2015 and 2016. What kind of assumptions did you use and why?**

4. **Your company wishes to lower the projected claim costs for the next two years. What are some options they can explore in order to mitigate these costs?**