
SOCIETY OF ACTUARIES
Group and Health – Advanced

Exam GHADV

AFTERNOON SESSION

Date: Thursday, October 31, 2013

Time: 1:30 p.m. – 3:45 p.m.

INSTRUCTIONS TO CANDIDATES

General Instructions

1. This afternoon session consists of 8 questions numbered 13 through 20 for a total of 40 points. The points for each question are indicated at the beginning of the question.
2. Failure to stop writing after time is called will result in the disqualification of your answers or further disciplinary action.
3. While every attempt is made to avoid defective questions, sometimes they do occur. If you believe a question is defective, the supervisor or proctor cannot give you any guidance beyond the instructions on the exam booklet.

Written-Answer Instructions

1. Write your candidate number at the top of each sheet. Your name must not appear.
2. Write on only one side of a sheet. Start each question on a fresh sheet. On each sheet, write the number of the question that you are answering. Do not answer more than one question on a single sheet.
3. The answer should be confined to the question as set.
4. When you are asked to calculate, show all your work including any applicable formulas.
5. When you finish, insert all your written-answer sheets into the Essay Answer Envelope. Be sure to hand in all your answer sheets since they cannot be accepted later. Seal the envelope and write your candidate number in the space provided on the outside of the envelope. Check the appropriate box to indicate morning or afternoon session for Exam GHADV.
6. Be sure your written-answer envelope is signed because if it is not, your examination will not be graded.

Tournez le cahier d'examen pour la version française.

****BEGINNING OF EXAMINATION****

Afternoon Session
Beginning with Question 13

- 13.** (4 points) You are an actuary working for Spiny Lobster Insurance Company (SLIC). Your manager has asked you to review the emerging chronic population data from the company's disease management (DM) program in order to determine the expected savings for next year.

You are given the following:

<u>Cohort</u>	<u>Average Cost PMPM Year 0</u>	<u>Average Cost PMPM Year 1</u>
High-Risk	\$846.40	\$915.12
Medium-Risk	\$653.20	\$631.43
Low-Risk	\$552.00	\$494.16

<u>Cohort</u>	<u>Cohort Members Year 0</u>	<u>Probability of Year 1 Enrollment:</u>		
		<u>High-Risk</u>	<u>Medium-Risk</u>	<u>Low-Risk</u>
High-Risk	800	70%	10%	20%
Medium-Risk	3,200	5%	75%	20%
Low-Risk	6,000	15%	5%	80%

Trend Adjuster is 5%.

Calculate the expected Year 1 savings under the following scenarios. Show your work.

- (i) Without risk adjustment
- (ii) Risk adjustment using the three strata

- 14.** (5 points) You are an actuary for Bearde and Whiskers Consulting (BWC), a firm specializing in pricing and regulations affecting small employer group business.
- (a) (1 point) List group underwriting parameters to consider.
 - (b)
 - (i) (1 point) List traditional rating case characteristics used by insurers.
 - (ii) (3 points) Explain how each characteristic is impacted by the Affordable Care Act (ACA) and the potential impact to rating.

15. (5 points) You are the actuary for a company which sells long term disability products.

- (a) (1 point) Describe the purpose of unearned premium reserves.
- (b) (1 point) Describe the two approaches to calculating benefit reserves.

Assume the following:

Annual premium due for 3 years of \$1,000 per year, due on policy anniversary.

Issue Date:	1/1/2013
Annual lapse rate:	10%
Interest rate:	5%

Expected Annual Benefits per
thousand dollars of premium:

2013	\$200
2014	\$400
2015	\$600

Benefits are payable at the end of the year.

- (c)
 - (i) (2 points) Calculate benefit reserves held at each policy year end using both methods. Show your work.
 - (ii) (1 point) Calculate unearned premium reserves on 3/31/2013, 6/30/2013, 9/30/2013 and 12/31/2013. Show your work.

16. (8 points) You are the actuary for A New You Health Plan (ANY). ANY introduced a new individual medical insurance product in January which contained some creative and unique benefits the marketing teams dreamed up including:

- A 2-year rate guarantee vs. the market-standard 1-year guarantee.
- A cosmetic surgery benefit that is more comprehensive than ANY's previous offerings, and not currently offered by any of your competitors.

At the end of May, sales were well above expectations. Year to date (YTD) paid claims and claim inventories were 25% below pricing expectations.

At the beginning of July you receive a report of claim inventories. You estimate that YTD paid claims are about what you would expect; however, the inventory of pending claims is three times what you expect.

(a) (1 point)

- (i) List information needed to adjudicate a medical claim.
- (ii) Identify the source (department or entity) of each item listed in (a)(i).

(b) (2 points)

- (i) List and describe reasons the pending claims inventory may be larger than usual.
- (ii) List and describe reasons valid claims may have been auto-denied.

(c) (1 point)

- (i) Identify types of reserves that are impacted by the sudden increase in the claims inventory.
- (ii) Predict the impact of an increase in pending claims on each type of reserve.

(d) (1 point) Explain reasons a 2-year rate guarantee may be significant and assess the impact it will have on your reserve estimates.

(e) (3 points) Describe the steps you would take to review and correct the performance of the new product, assuming that the product doesn't perform as expected.

17. (4 points)

- (a) (1 point) Describe the difference between risk assessment and risk adjustment.
- (b) (3 points) Describe U.S. standards that you must consider in justifying risk adjustment changes.

18. (6 points) Company XYZ currently has only one medical plan in which its employees may enroll. It is considering offering three medical plan choices.

- (a) (1 point) Explain why a selection load is needed.

You are given the following:

- The employees have been grouped into Low, Average and High Risk categories.
- Assume plans A, B & C all have equivalent actuarial values.

Company XYZ	Number of employees	Relative Health Status (Morbidity)	Plan	Insurer Premium Rates
Low Risk	80	60%	A	\$450
Average Risk	45	100%	B	\$550
High Risk	<u>25</u>	<u>230%</u>	C	\$700
Composite	150	100%		

- (b) (3 points)
 - (i) Explain methods to group employees by morbidity.
 - (ii) Calculate a selection load for this group. Show your work.
- (c) (1 point) Outline how employers should set up premium contributions under a choice environment.
- (d) (1 point) Explain how an insurer can manage selection and its financial impact.

19. (5 points) You are the Chief Risk Officer (CRO) at a company that specializes in providing Medicare Advantage (MA) plans through Health Maintenance Organizations (HMO) and Preferred Provider Organizations (PPO).

- (a) (1 point) Explain the concept of a Fraud Triangle.
- (b) (1 point) Identify examples of fraud and abuse in a Managed Care Organization (MCO) that are specific to MA plans.
- (c) (3 points)
 - (i) List potential indicators of health care fraud in a Managed Care Organization (MCO).
 - (ii) Describe the steps that could be taken by your organization in order to mitigate your exposure and liability regarding health care fraud and abuse.
 - (iii) List the common elements in developing an effective compliance program, as identified by the Office of the Inspector General (OIG).

20. (3 points)

- (a) (1 point) List the pros and cons for an HMO entering into a capitation agreement with a provider.

You are given the following:

- 2011 Physician Office/Home Visits utilization per 1,000 members: 4,986.9 visits
- 2011 Physician Office/Home Visits allowed cost per unit: \$112.24
- There was no cost sharing for members for Physician Office/Home Visits.
- In 2012, a patient copay of \$10.00 will be introduced.
- Total cost is expected to increase by 5%.
- Utilization is expected to decrease by 10% due to the introduction of the patient copay.

- (b) (2 points)

- (i) Calculate the 2011 Physician Office/Home Visits capitation rate (per member per month) based on 2011 experience. Show your work.
- (ii) Calculate the 2012 Physician Office/Home Visits capitation payment per member per month. Show your work.

****END OF EXAMINATION****
Afternoon Session

USE THIS PAGE FOR YOUR SCRATCH WORK

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