SOCIETY OF ACTUARIES

Group & Health Risk Mitigation Exam

Exam GHRM

Date: Friday, May 2, 2025

INSTRUCTIONS TO CANDIDATES

General Instructions

1. This examination has 8 questions numbered 1 through 8 with a total of 60 points.

   The points for each question are indicated at the beginning of the question.

2. 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 provided in this document.

Written-Answer Instructions

1. Each question part or subpart should be answered either in the Word document or the Excel file as directed. Graders will only look at work in the indicated file.

   a) In the Word document, answers should be entered in the box marked ANSWER. The box will expand as lines of text are added. There is no need to use special characters or subscripts (though they may be used). For example, β_1 can be typed as beta_1 (and ^ used to indicate a superscript).

   b) In the Excel document formulas should be entered. Performing calculations on scratch paper or with a calculator and then entering the answer in the cell will not earn full credit. Formatting of cells or rounding is not required for credit.

   c) Individual exams may provide additional directions that apply throughout the exam or to individual items.

2. The answer should be confined to the question as set.

3. Prior to uploading your Word and Excel files, each file should be saved and renamed with your unique candidate number in the filename.

4. The Word and Excel files that contain your answers must be uploaded before the five-minute upload period expires.

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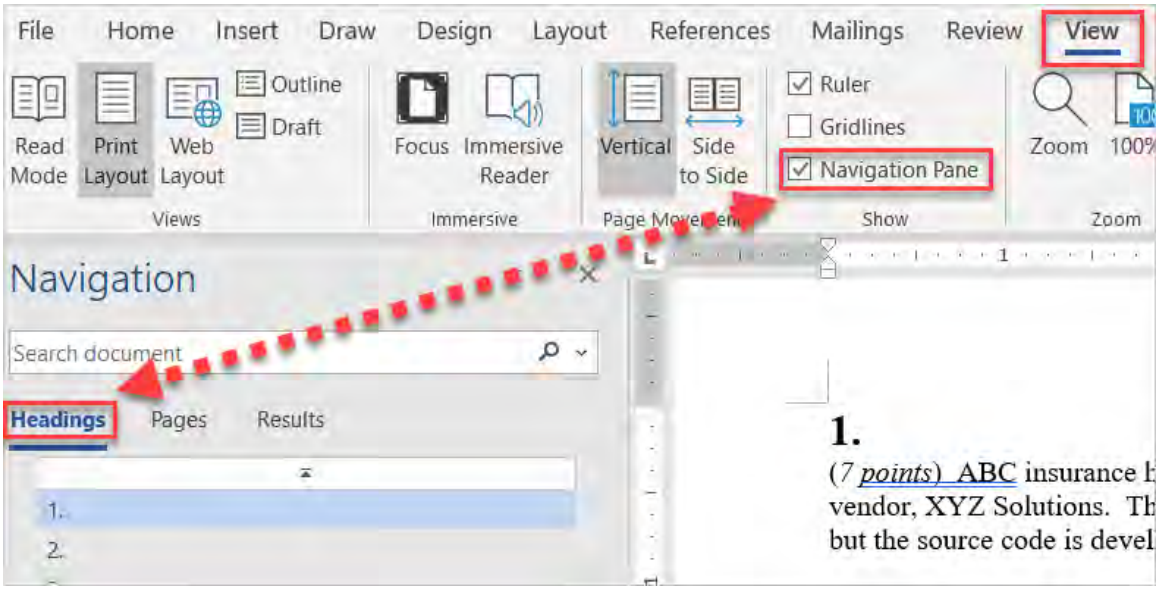
Navigation Instructions

Open the Navigation Pane to jump to questions.

Press Ctrl+F, or click View > Navigation Pane:



1.

(*7 points*)

(a) (*3 points*) Describe the three models of care management program planning, including advantages and disadvantages that may favor one model over another model.

ANSWER:

(b) (*1 point*) Describe ways the actuarially-adjusted historical control methodology addresses the challenges found in other types of care management evaluations.

ANSWER:

(c) (*1 point*) Describe differences between managed and measured populations for disease management programs.

ANSWER:

(d) (*2 points*) Describe the following terms used for care management evaluation:

(i) Exposure to risk

ANSWER:

(ii) Intent to treat

ANSWER:

The Excel spreadsheet has
additional data and information applicable to this question.

2.

(*6 points*) You are advising Company YKW in its evaluation of group benefits offered to their employees in Year X+1. YKW currently offers two medical plans, HMO and PPO. YKW's contributions to medical premiums vary by employee salary and the level of dependent coverage.

In the Excel spreadsheet, you are given details on Year X per employee per month (PEPM) premiums and the proportion of employer contribution.

(a) (*2 points*) Calculate YKW's total monthly contribution to employee's medical premiums in Year X. Show your work.

The response for this part is to be provided in the Excel spreadsheet.

In the Excel spreadsheet, you are given Year X+1 PEPM renewal rates for YKW's medical plan offerings.

(b) (*3 points*) Calculate the percentage increase in YKW's total contributions in Year X+1 compared to Year X for the following scenarios. Show your work.

(i) YKW keeps the same contribution strategy as Year X.

(ii) YKW adopts a defined contribution strategy, with a fixed contribution of 80% of PPO premium by coverage tier.

(iii) YKW changes its contribution level to 85% of employee-only medical premium, plus 50% of additional premium for dependent coverage.

(iv) YKW sets monthly employee contributions as a percentage of annual salary as follows:

Plan	Employee only	Employee plus spouse	Employee plus family
HMO	0.240%	0.504%	0.672%
PPO	0.200%	0.420%	0.560%

The response for this part is to be provided in the Excel spreadsheet.

2. Continued

(c) (*1 point*) Recommend a medical benefit contribution strategy to YKW for Year X+1. Justify your response.

ANSWER:

3.

(*7 points*)

(a) (*3 points*) Describe strengths and weaknesses of the No Surprises Act (NSA).

ANSWER:

(b) (*1 point*) Explain why both the average claim payment amount and number of paid claims related to NSA services might decrease.

ANSWER:

A group of out-of-network providers who perform services at an in-network facility have been approached by an insurance company to join their network.

(c) (*3 points*) Explain why some providers may join the network and others may not.

ANSWER:

4.

(*10 points*) You are a consulting actuary for a provider organization that is considering becoming an Accountable Care Organization (ACO).

You are given the following information on the provider organization for the next three years:

	Revenue ($M)			**% Change in Revenue as an ACO**		
	Year 1	**Year 2**	**Year 3**	**Year 1**	**Year 2**	**Year 3**
Inpatient	180	198	218	-12%	-11%	-10%
Outpatient	60	66	73	-12%	-11%	-10%
Physician	120	132	145	-8%	-8%	-8%
Other	50	55	61	3%	3%	3%

- 40,000 members per year for 3 years
- Reduction in direct expenses: 60% of the change in revenue can be eliminated to offset the revenue declines
- ACO start-up expenses are $6.0 million in Year 1
- Staff and physician incentive programs expenses are $1.5 million per year for 3 years
- Electronic Health Record system expense is $1.0 million per year for 3 years
- Other ongoing administrative expenses are $0.8 million per year for 3 years
- Bonus: One-sided model with 60% shared savings
- Assume the ACO meets program bonus conditions
- Projection Duration: Initial three-year contracting period

(a) (*4 points*) Calculate the projected net profit for the provider organization as an ACO in the next three years. Show your work.

The response for this part is to be provided in the Excel spreadsheet.

4. Continued

(b) (*4 points*) Evaluate the financial impact on the provider organization as an ACO for each of the following scenarios:

(i) Member population doubles

ANSWER:

(ii) No reduction in utilization in year 1

ANSWER:

(iii) The ACO fails to meet its quality requirements

ANSWER:

(iv) Changes in the healthcare risk profile of the member population results in more high-risk, high-cost patients

ANSWER:

(c) (*2 points*) Critique the following two statements regarding ACOs:

(i) Shared savings may be increasingly difficult to sustain after initial utilization reductions are achieved. As a result, shared savings is only a transitional model that will eventually need to be moved to capitation.

ANSWER:

(ii) ACOs primarily drive savings through cost-cutting measures, which may compromise patient care quality in the long run. Therefore, quality incentives are secondary to financial savings in the ACO model.

ANSWER:

5.

(*7 points*)

(a) (*2 points*) Describe reasons for the following updates made to the HHS-Operated Risk Adjustment Model and the Transfer Formula in the 2018 Notice of Benefit and Payment Parameters.

1. Addition of enrollment duration factors to adult models
2. Addition of prescription drugs to the adult model
3. Establishment of a high-cost risk pool
4. Reducing the statewide average premium

ANSWER:

(b) (*2 points*) Describe recommendations in ASOP 45 regarding the selection and implementation of an appropriate risk adjustment model.

ANSWER:

(c) (*3 points*)

(i) Define the lowest and highest risk enrollee subpopulations of the HHS risk adjustment model.

ANSWER:

(ii) Explain why improvements to the prediction accuracy are indicated for these subpopulations.

ANSWER:

The Excel spreadsheet has
additional data and information applicable to this question.

6.

(*9 points*) In the Excel spreadsheet, you are given data for members in a diabetes disease management program.

(a) (*8 points*) Calculate the PMPM savings for the program in year 1 under the following approaches. Show your work.

(i) Without risk adjustment

(ii) With risk adjustment

The response for this part is to be provided in the Excel spreadsheet.

(b) (*1 point*) Recommend an approach from part (a). Justify your response.

ANSWER:

7.

(*7 points*)

(a) (*2 points*)

(i) Describe the functional approach to designing and evaluating employee benefits.

ANSWER:

(ii) Explain why the functional approach is needed.

ANSWER:

A developing industrial organization is reaching maturity. The company would like to adjust its reward components to meet employee needs, goals, or exposures to loss in the following functional categories: medical expenses, disability losses, in case of death, retirement, capital accumulation.

You are given the following information on the current benefits offered by the company:

- Base salary at the 60th percentile for industry, geography, and position.
- High Deductible Health Plan (HDHP) with HSA and 70% employer premium contribution.
- Lean dental, vision, and hearing plans offered with minimal subsidization.
- Target bonuses at the 75th percentile for industry, geography, and position heavily linked to company performance.
- 401k program with 2% company match.
- Generous stock bonuses linked to personal and company performance for all employees.

(b) (*2 points*) Recommend changes to the company's current benefits. Justify your response.

ANSWER:

(c) (*3 points*) Describe how the company's benefits apply to the functional categories.

ANSWER:

8.

(*7 points*) You are a risk-adjustment actuary working for a Medicare Advantage Organization (MAO), assisting with the 2026 Centers for Medicare and Medicaid Services (CMS) Medicare Advantage (MA) and Part D bids.

(a) (*1 point*) Explain the differences between the MA Part C normalization and coding intensity risk adjustment factors.

ANSWER:

(b) (*3 points*) Critique the following statements regarding Medicare Advantage Part C and/or Part D risk score calculations:

(i) A Medicare enrollee on 1/1/ 2024 didn't seek any medical care in 2024, however, on 10/1/2025, was newly diagnosed with congestive heart failure as a member on a MA plan. Claims costs associated with this newly diagnosed condition will be adequately compensated in 2025.

ANSWER:

(ii) Both Part C and Part D payments from CMS are risk-adjusted and have the same risk score.

ANSWER:

(iii) Adjusting the risk score in MA bids from a projected value of 1.00 to 1.02 without a corresponding increase in the expected claims morbidity will increase revenue from CMS without any consequences.

ANSWER:

(c) (*3 points*) Compare and contrast risk adjustment for the following programs:

- Medicare
- Medicaid
- ACA Exchanges

ANSWER:

****END OF EXAMINATION****