

GH SPC Model Solutions

Fall 2020

1. Learning Objectives:

1. The candidate will understand how to evaluate healthcare intervention programs.

Learning Outcomes:

- (1a) Describe, compare and evaluate programs.

Sources:

Duncan, 2nd Edition, 2014, Chapter 3

Commentary on Question:

Most candidates performed well on Part (a) while fewer candidates performed as well on Parts (b) and (c).

Solution:

- (a) Describe features of a successful ACO care management program.

Commentary on Question:

Data and analytics are not very mature and incomplete for ACO's. ACO needs to employ high-quality, real-time, data analytics.

The ACO model emphasizes the Electronic Medical Record. Most are often in notes rather than readable form, limiting nurse productivity.

Importance of Economics: An ACO needs to focus on patients with greatest opportunity for cost reduction. Intervention objectives and metrics need to be defined.

Importance of planning and understanding opportunities: Opportunity analysis would be a useful tool for ACOs to take corrective actions.

- (b)
 - (i) Describe key elements of case management.
 - (ii) List challenges case managers face in performing their work.

1. Continued

- (i) Key elements of case management:

Involves health care professional that coordinates care of patient with serious disease or illness.

Case manager is usually a nursing professional.

Case loads are small because of intensity of services.

Complexity of diseases that necessitate a case manager usually involve multiple medical specialties/institutions, etc.

- (ii) Challenges case managers face in performing their work:

To perform activities consistently and uniformly

Not empowered to control access to resources, but only suggest alternatives.

New untested treatments are difficult for MCOs to deny.

Progression of patient leads to various outcomes making it hard to follow guidelines.

Medical resources available to patients vary by community complicating the work of case managers.

- (c) Drug adherence can be measured in two ways.

- (i) Write the formula for each measure.
(ii) Compare and contrast the two measures.
(iii) Explain ways to increase drug adherence.

Commentary on Question:

Many candidates had difficulty in accurately describing the numerator and/or denominator of both formulas.

- (i) Formulas
Medication Possession Ratio (MPR) = No. of Days' supply in the patient's possession/No. of Days during the measurement period during which the patient could have had the drug

1. Continued

Proportion of Days Covered (PDC) = No. Days of Coverage/Total No. of Days in the Measurement Period

- (ii) The two measures differ in that –
MPR counts all days of supply, even when they overlap, therefore could be greater than 100%

PDC starts with days and asks: did the patient have a drug on this day?

PDC is more conservative measure than MPR because it avoids the double-counting when more than one drug is consumed in one day.

The two measures are similar in that –
Neither measure can confirm the drug was consumed

- (iii) Ways to increase drug adherence includes –
Establish adherence/possession ratio of 80%; up to 95% for HIV drugs.

Introduce programs

- To raise patient awareness

- To predict which patients are likely to be non-adherent, and then

- To intervene with them

Face-to-face counseling by trained pharmacists at time of initial Rx.

Track first fill rates with and without pharmacist intervention.

Reduce patient cost or offer incentives

More successful when pharmacists actively intervene with the physician to change dose or prescription.

2. Learning Objectives:

1. The candidate will understand how to evaluate healthcare intervention programs.

Learning Outcomes:

- (1a) Describe, compare and evaluate programs.
- (1b) Estimate savings, utilization rate changes and return on investment.
- (1c) Apply the actuarially adjusted historical control methodology.

Sources:

GHS-125-19: Program Management and Evaluation Guide: Core Metrics for Employee Health Management, Ch. 2

Managing and Evaluating Healthcare Intervention Programs, Duncan, Ian G., 2nd Edition, 2014, Ch. 8

Commentary on Question:

Candidates were tested on their ability to describe how care management programs are evaluated and to evaluate a particular sample program.

Solution:

- (a) Explain how *return* is understood by business decision makers in the return on investment (ROI) paradigm versus for employee health management (EHM).

Commentary on Question:

Candidates generally earned some credit for this section, but had to mention how the EHM savings were derived to earn full credit.

In the ROI paradigm, the revenue generated by a program is compared against the amount of the investment to determine the return of the program.

In the EHM paradigm, the return is expressed as savings based on money not spent due to prevented events like hospitalizations or ER visits.

- (b) Describe recommended financial metrics to measure healthcare cost savings from EHM.

Commentary on Question:

Some candidates did well, responding on the different ways healthcare cost savings could be derived. Various methods were needed to earn full credit. Candidates who only listed, rather than described, how the different metrics of measurement could be expressed (e.g. ROI, net savings) did not receive credit.

2. Continued

The first category of metrics are directly monetized metrics. This can be evaluated with a variety of methods such as:

- comparing company's cost trend against peer organizations without EHM,
- comparing actual to expected cost trends,
- comparing chronic and non-chronic trends between a baseline and measurement period, and
- comparing participants in the EHM program to non-participants.

A second category of metrics are monetized rates of hospitalizations that were prevented by EHM. This can be determined by reviewing downward trends on ER visits or hospitalizations.

A third category of metrics are based on a model that links to what occurred during a program and the characteristics of the participants. This may include rigorous studies of prior years of the program applied to the book of business or be related to changes in lifestyle-related health risk factors.

- (c) Calculate the reduction in hospitalizations per 1,000 members required to achieve a desired hurdle rate of 100%. Show your work.

Commentary on Question:

Many of the candidates performed well on this part of the question.

Total cost of program = Members * Cost PMPM * 12

Total cost of program = 1,000 * \$1.75 * 12 = \$21,000

Hurdle rate of 100% = Net ROI of 100% = Gross ROI of 200%

Total Savings Needed = 200 % * \$21,000 = \$42,000

Reduction in Hospitalizations Needed = Total Savings Needed / Cost Per Hospitalization = \$42,000 / \$12,000 = **3.5 fewer hospitalizations**

- (d)
- (i) Explain reasons for and against continuing the EHM program. Show your work.
- (ii) Recommend whether or not to continue the EHM program. Justify your response.

2. Continued

Commentary on Question:

Most candidates performed well on Part (i). Candidates able to identify various reasons for continuing the program and recommending to continue the program in part (ii) received full credit. Partial credit was given for recommending to discontinue the program as long as justification was provided.

- (i) Expected hospitalizations in measurement period = Baseline period hospitalizations * trend = $50 * 1.02 = 51$

Reduced hospitalizations in measurement period = Expected hospitalizations in measurement period – Actual hospitalizations in measurement period = $51 - 3 = 48$

Cost Savings = Reduced hospitalizations * Cost per hospitalization = $3 * \$12,000 = \$36,000$

Cost of program = \$21,000

Gross ROI = $\$36,000 / \$21,000 = 171\%$

Reasons against continuing the program:

- The hurdle rate of 100% was not met.

Reasons for continuing the program:

- The program still achieved a positive ROI.
- More members have an LDL of less than 100. This indicates that the program is improving the health of the population.
- Most EHM programs produce more savings in subsequent years, so it's possible the savings will increase in year 2.
- There could be savings from other areas, like reduced ER visits.

- (ii) It is recommended to continue the program. While the hurdle rate was not met, the ROI was still positive. The leading indicator of reduced LDLs means that members will achieve greater savings, and the program could be reasonably expected to produce more savings in future years. Savings could also potentially be found in other service categories besides inpatient hospitalizations. All of these indicators lead to reasons to continue the program.

3. Learning Objectives:

2. The candidate will understand how to evaluate health insurance organization risk and mitigation strategies.

Learning Outcomes:

- (2a) Evaluate an enterprise risk management (ERM) system.
- (2b) Complete a capital needs assessment.
- (2d) Understand how an Own Risk Solvency Assessment (ORSA) complements and differs from traditional risk assessment.

Sources:

GHS-116-19 NAIC Own Risk and Solvency Assessment (ORSA) Manual December 2017

Solution:

- (a) Describe four key principles of an effective enterprise risk management (ERM) framework.

Risk Culture and Governance –

Governance structure that clearly defines and articulates roles, responsibilities and accountabilities; and a risk culture that supports accountability in risk-based decision-making.

Risk Identification and Prioritization –

Risk identification and prioritization process that is key to the organization; responsibility for this activity is clear; the risk management function is responsible for ensuring that the process is appropriate and functioning properly at all organization levels.

Risk Appetite, Tolerances and Limits –

A formal risk appetite statement, and associated risk tolerances and limits are foundational elements of risk management for an insurer; understanding of the risk appetite statement ensures alignment with risk strategy by the board of directors

Risk Management and Controls –

Managing risk is an ongoing ERM activity, operating at many levels within the organization

Risk Reporting and Communication –

Provides key constituents with transparency into the risk-management processes and facilitate active, informal decisions on risk-taking and management.

3. Continued

- (b) The following statements were made concerning the procedures of the Group Solvency Issues (E) Working Group for proposed changes, amendments and/or modifications to the NAIC Own Risk and Solvency Assessment (ORSA) Guidance Manual:
- I. The Working Group may only consider relevant proposals to change the Manual at national meetings.
 - II. The Working Group publishes a formal submission form for proposals and may only consider proposals submitted in that format.
 - III. Any proposal that would change the Manual will be effective immediately following the NAIC Summer National Meeting.
 - IV. All proposals to be considered by the Working Group will be exposed for public comment.

Critique the accuracy of each statement.

FALSE – The Working Group may consider relevant proposals to change the Manual at any conference call, interim or national meeting, not just at national meetings.

FALSE – Proposals may also be submitted in an alternate format provided they are stated in a concise and complete format.

FALSE – Any proposal that would change the Manual will be effective January 1 following the NAIC Summer National Meeting (i.e. of the preceding year) in which it was adopted by the Working Group and the Fall National Meeting in which it was adopted by the NAIC.

TRUE – Except in rare instances, or where emergency action is required, there is always a public comment period of no less than thirty days. May be extended.

- (c)
- (i) Describe the considerations for the approach and assessment of group-wide capital adequacy.
 - (ii) Describe the insurer's considerations for a prospective solvency assessment.

3. Continued

- (i)
 - 1. Elimination of intra-group transactions and double-gearing where the same capital is used simultaneously as a buffer against risk in two or more entities
 - 2. The level of leverage, if any, resulting from holding company debt
 - 3. Diversification credits and restrictions on the fundability of capital within the holding company system, including the availability and transferability of surplus resources created by holding company system level diversification benefits
 - 4. The effects of contagion risk, concentration risk and complexity risk in the group assessment of risk capital
 - 5. The effect of liquidity risk, or calls on the insurer's cash position, due to micro-economic factors (i.e., internal operational) and/or macro-economic factors (i.e., economic shifts).

- (ii)
 - 1. The insurer's prospective solvency assessment should demonstrate it has the financial resources necessary to execute its multi-year business plan in accordance with its stated risk appetite.
 - a. If insurer does not have necessary available capital to meet current and projected risk capital requirements then it should describe management actions to be taken to remedy any concerns
 - b. Could include business plan modifications or identification of additional capital resources
 - 2. The prospective solvency assessment is, in effect, a feedback loop.
 - a. The insurer should project its future financial position, including its projected economic and regulatory capital to assess its ability to meet the regulatory capital requirements.
 - b. Factors to be considered are the insurer's current risk profile, risk management policy, and its quality and level of capital
 - c. The prospective solvency assessment should also consider normal and stressed environments.
 - 3. The prospective solvency assessment should also include a discussion of prospective risks impacting the capital projections.
 - a. This discussion should address whether risk exposures are expected to increase or decrease in the future and what steps the insurer plans to take that may change its risk exposures
 - b. Prospective should pertain to both existing risks likely to intensify and emerging risks with the potential to impact the resinsurer in the future
 - 4. If the prospective solvency assessment is performed for each individual insurer, the assessment should take into account any risks associated with group membership.
 - a. Such an assessment may involve a review of of any group solvency assessment and the methodology used to allocate group capital across insurance legal entities, as well as consideration of capital fungibility.

3. Continued

- (d) List key information included in the ORSA Summary Report to aid the commissioner's understanding.
 1. The ORSA Summary Report should identify the basis(es) of accounting for the report (e.g., generally accepted accounting principles, statutory accounting principles or international financial reporting standards)
 2. The date or time period that the numerical information represents.
 3. The ORSA Summary Report should explain the scope of the ORSA conducted such that the report identifies which insurer(s) are included in the report, which may be accomplished by including an organizational chart.
 4. In subsequent years, include a short summary of material changes to the ORSA from the prior year.

4. Learning Objectives:

2. The candidate will understand how to evaluate health insurance organization risk and mitigation strategies.

Learning Outcomes:

- (2c) Integrate reinsurance arrangements within an overall risk management strategy.

Sources:

GHS-117-16:Chapter 18 of Life, Health, and Annuity Reinsurance: Health Reinsurance

Commentary on Question:

Commentary listed underneath question component.

Solution:

- (a) Describe:
 - (i) Individual Disability Income (IDI) underwriting for reinsurance.
 - (ii) Group Long Term Disability (GLTD) underwriting for reinsurance.

Commentary on Question:

Many candidates struggled to describe underwriting for reinsurance for both IDI and GLTD.

IDI – has both Medical and Financial underwriting components:

- Medical is similar to life except the underwriter is more interested in potentially disabling conditions (e.g. back pain) as opposed to fatal conditions.
- Financial is critical to ensure the monthly income benefit is appropriate to earnings history and expectations of the insured. Financial may also consider unearned income and restrict the benefit to encourage return to work. Financial also takes into consideration the definition of the disability into account – own occupation carries a greater risk because a policyholder can still collect benefits without seeking employment in another field

GLTD

- GLTD is guaranteed issue – medical underwriting is limited to any benefit amount in excess of the guaranteed issue limit
- GLTD is usually offered on a basis of any reasonable occupation, so a person could take another position which they are qualified for rather than their original occupation

4. Continued

- GLTD underwriters make two major evaluations of each group:
 - Determine overall parameters that will be offered to control anti-selection. Plan parameters include plan maximums, GI limits, definition of disability, replacement ratios, elimination period, and benefit period.
 - Evaluate parameters of each case in order to calculate an appropriate rate. This includes evaluating age and amount mix, industry, prior experience, shock losses, credibility, other claim cost drivers, and profit components
- (b) Recommend which reinsurer your company should select. Justify your response. Show your work.

Commentary on Question:

In general, candidates did well on this part of the question. Some candidates received full credit using an alternative approach that calculated the expected savings to your company.

Calculate your company's expected claim costs after reinsurance is applied for each of the offers. Add reinsurer premium to determine best offer. Lowest Total Cost is best offer.

Company A: Number of Policies * Monthly Benefit Net of Retention * Term Net of Elimination Period * Net Retention Percentage

- i. $100 * 2,000 * 24 * (100\% - 45\%) = 2,640,000$
- ii. Total Cost = Expected Claim Cost + Reinsurer Premium, $2,640,000 + 1,200,000 = 3,840,000$

Company B: Number of Policies * Monthly Benefit Net of Retention * Term Net of Elimination Period * Net Retention

- i. $100 * 2,000 * 6 * 100\% = 1,200,000$
- ii. $100 * 2,000 * (24 - 6) * (100\% - 60\%) = 1,440,000$
- iii. Total Claims = $1,200,000 + 1,440,000 = 2,640,000$
- iv. Total Cost = $2,640,000 + 1,100,000 = 3,740,000$

Company C: Number of Policies * Monthly Benefit Net of Retention * Term Net of Elimination Period * Net Retention

- i. $100 * 2,000 * 3 * 100\% = 600,000$
- ii. $100 * (2,000 - 1,200) * (24 - 3) * 100\% = 1,680,000$
- iii. Total Claims = $600,000 + 1,680,000 = 2,280,000$
- iv. Total Cost = $2,280,000 + 1,500,000 = 3,780,000$

Company D: Number of Policies * Monthly Benefit Net of Retention * Term Net of Elimination Period * Net Retention

- i. $100 * (2,000 - 975) * 24 * 100\% = 2,460,000$
- ii. Total Cost = $2,460,000 + 1,400,000 = 3,860,000$

Recommendation – Company B, because it has the lowest total cost – 3,740.

5. Learning Objectives:

3. The candidate will understand how to apply risk adjustment in actuarial work.

Learning Outcomes:

- (3b) Apply risk adjustment to underwriting, pricing, claims and are management situations.

Sources:

Healthcare Risk Adjustment and Predictive Modeling, Duncan (2nd edition), Chapter 21

Commentary on Question:

This question was meant to test candidate's understanding of Risk Adjustment and its application. Further commentary is provided for each section below.

Solution:

- (a) Describe issues with the Massachusetts risk adjustment and National risk adjustment processes.

Commentary on Question:

In order to receive full credit for this portion of the question, candidates needed to provide a meaningful description of the issues, rather than just listing them.

Issues that impacted the Massachusetts risk adjustment process and the National risk adjustment process include:

- Risk adjustment applies to the gross premium, and thus transfers part of the expense margin in addition to excess claims
- Bias against zero-condition members – members may not have any conditions mapped due to being new to a health plan or having a condition that is not part of the HCC mapping, but may still incur claims significant claims
- Bias against limited network or lower cost plans – these tend to be lower cost, allowing a plan to charge lower premiums (compared to the statewide average), as well as being less attractive to members with health conditions that require frequent provider visits (these members are more likely drive higher risk scores, which is beneficial to the plan in terms of risk transfer calculations).
- Risk adjustment operates at the state, rather than the regional level – wide variations in networks, costs, and utilization can exist within a state. This is similar to the effect of low-cost network.
- Partial year enrollment – new entrants who enter partway through the year have fewer months to accumulate diagnoses that map to HCCs but may still experience acute episodes of expenses over a short time.
- Lack of historical data – ACA uses a concurrent model with only one year of claims data. Even members with chronic conditions may fail to have claims for those conditions in successive years, which will reduce the member's risk score.

5. Continued

Other issues that could have been described:

- Only a fraction of members trigger conditions
- Prospective vs. concurrent models
- Market-share

(b) You are given the following information:

	State	Blue Note	Yellow Bird
Actuarial value (AV)	0.7	0.7	0.7
Allowable Rating Factor (ARF)	1.952	1.952	1.952
Member Months	24,000	9,600	14,400
Risk x Induced Demand x Geographic	1.037	0.936	1.104

Average Premium PMPM	\$500	\$440	\$540
Total Premium	\$12,000,000	A	B
Target Loss Ratio for Pricing	N/A	85%	85%
Claims	\$10,200,000	\$3,590,400	\$6,609,600
ACA risk adjustment transfer amount (round to nearest \$10k)	C	D	E
Net Income		F	G
Net Income as % of Premium		H	I

Calculate the values for A through I in the table above. Show your work.

Commentary on Question:

Nearly all candidates were able to calculate total premium. Fewer candidates were able to derive the correct risk adjustment transfer amounts. Partial credit was given to candidates who were able to complete some, but not all, of the calculations or who provided formulas and an understanding of the calculation.

5. Continued

	State	Blue Note	Yellow Bird
Actuarial value (AV)	0.7	0.7	0.7
Allowable Rating Factor (ARF)	1.952	1.952	1.952
Member Months	24,000	9,600	14,400
Risk x Induced Demand x Geographic	1.037	0.936	1.104

Average Premium PMPM	\$500	\$440	\$540
Total Premium	\$12,000,000	4,224,000	7,776,000
Target Loss Ratio for Pricing	N/A	85%	85%
Claims	\$10,200,000	\$3,590,400	\$6,609,600
ACA risk adjustment transfer amount (round to nearest \$10k)	\$0	(-470,000)	470,000
Net Income		163,600	1,636,400
Net Income as % of Premium		4%	21%

A: (Blue Note) Average Premium PMPM x (Blue Note) Member Months
 = \$440 x 9,600 = \$4,224,000

B: (Yellow Bird) Average Premium PMPM x (Yellow Bird) Member Months
 = \$540 x 14,400 = \$7,776,000

C: ACA Risk Transfer is designed to be budget neutral, meaning C = \$0

D: Fund Transfer = Premium with risk selection – premium without risk selection
 (Normalized PLRSxIDFxGCF – 1) * State Average Premium PMPM x Blue Note Member Months
 = (0.936 / 1.037 – 1) * \$500ppm * 9,600 Member Months = (-467,502.41)
 Rounded to the nearest \$10k = (-470,000)

Negative denotes that the plan is paying the risk transfer, positive means the plan is receiving the risk transfer.

E: Fund Transfer = (Normalized Risk Score – 1) * State Average Premium PMPM x Yellow Bird Member Months
 = (1.104 / 1.037 – 1) * \$500ppm * 14,400 Member Months = 465,188.04
 Rounded to the nearest \$10k = 470,000

F: Net Income = Premium – Claims + Funds Transferred*
 4,224,000 – 3,590,400 – 470,000 = 163,600000 = 163,600

5. Continued

$$\begin{aligned} \text{G: Net Income} &= \text{Premium} - \text{Claims} + \text{Funds Transferred*} \\ 7,776,000 - 6,609,600 + 470,000 &= 1,636,400 \end{aligned}$$

$$\text{H: Net Income/Premium} = 163,600/4,224,000 = \text{approx. } 4\%$$

$$\text{I: Net Income/Premium} = 1,636,400/7,776,000 = \text{approx. } 21\%$$

6. Learning Objectives:

3. The candidate will understand how to apply risk adjustment in actuarial work.

Learning Outcomes:

(3a) Describe and compare risk adjustments based on commonly used clinical data and grouping methods.

Sources:

GHS-119-17: The HHS-HCC Risk Adjustment Model for Individual and Small Group Markets under the Affordable Care Act

Healthcare Risk Adjustment and Predictive Modeling, Duncan (2nd edition) Chapter 5

Healthcare Risk Adjustment and Predictive Modeling, Duncan (2nd edition) Chapter 13

Solution:

(a)

- (i) Describe the plan liability risk adjustment model and how the plan liability was determined.
- (ii) Explain how the plan liability expenditures were determined, including the data source used.

Commentary on Question a: *Most candidates misread this part of the question and provided how relative risk scores were developed instead of how the plan liability and plan liability expenditures were determined. Some of the principles apply to both liability and risk score development so many candidates received partial credit.*

Part i

- The HHS-HCC risk adjustment model predicts health care expenditures for which plans are liable which exclude enrollee cost sharing.
- For each cost sharing level (platinum, gold, silver, and bronze metal levels, as well as catastrophic plans) three elements were used to determine plan liability.
- Plan liability is zero percent of total expenditures below the deductible
- (1- Coins %) of total expenditures between the deductible and the out-of-pocket limit
- 100% of total expenditures above the out-of-pocket limit.

6. Continued

Part ii

- The data source was the 2010 MarketScan®
 - Data includes inpatient, outpatient, and drug services files
 - Total payments, including cost sharing were summed.
 - The summed 2010 expenditures were trended to 2014.
 - The standard benefit design parameters (deductibles, coinsurance rates, out-of-pocket limits) were applied to the trended expenditures to simulate plan liability expenditures for each metal level.
 - Plan liability expenditures were then annualized by dividing them by the fraction of months in 2010 that each beneficiary is enrolled in the plan (i.e., by the eligibility fraction).
 - Annualized expenditures are the “per member per month” amount multiplied by 12.
 - Finally, plan liability expenditures were converted to relative plan liability expenditures, which are defined as plan liability expenditures divided by a denominator (a weighted average of the means of each plan liability for each metal level where the weights were based on a forecasted distribution of enrollment in 2014 across the five metal levels)
- (b) Compare and contrast drug-based risk adjustment grouper models and total medical grouper models.

Commentary on Question:

Many candidates received partial credit and seemed to understand the two types of models. Some only discussed or listed the advantages and disadvantages of using drug data versus medical data instead of comparing and contrasting the two types of models themselves.

- The medical grouper models map diagnosis codes to different condition categories.
 - Drug grouper models are based on drug utilization (NDC) data into condition categories
 - Both use regression models determine the contribution to the ultimate cost of the patient’s care.
 - Both generate a relative risk score.
 - Both models predict the total member cost (or relative risk of total healthcare resource utilization) not just drug cost/utilization.
- (c) Explain why the Arizona Medicaid risk adjustment methodology for Temporary Assistance for Needy Families (TANF) is applicable to newborns but not applicable to other cohorts.

6. Continued

Commentary on Question:

Most candidates got the first point and some could elaborate for a more full explanation.

- The methodology for other groups is a prospective methodology (based on prior year claims). Newborns have no prior year claims.
- The methodology for newborns was changed to a retrospective (concurrent) methodology.
- The claims of the prior cohort of newborns in the experience period are used to project newborn experience in the rating period.
- This approach assumes that while the specific newborns in any health plan will change from the experience period to the rating period, health plans attract newborns with a consistent health status mix over time.

- (d) The following information is given for a Managed Care Organization (MCO) in the Arizona Medicaid program for the contract year ending 2017:

Cohort	Cohort Weight	Condition Episode Risk Group (ERG) Factor	Age/ Sex Factor
Long Cohort	0.8	0.36	0.4
Short Cohort	0.2	N/A	0.36

- Weighted Condition Factor for all MCOs in Arizona is 0.3652.
- (i) Describe how enrollment is determined for the Long Cohort.
- (ii) Calculate the Relative Risk Score for the MCO. Show your work.
- (iii) Explain how the risk adjustment factor is applied to the base capitation rates to develop the adjusted capitation rates.

Part i

- The long cohort consists of those members who have at least 6 months of eligibility during the experience period
- If a member has a break in coverage during the experience period, months before and after the break are counted.

6. Continued

Part ii

- Relative Health Factor:
 - $0.3600/0.4000 = 0.9000$
- Imputed Condition Factor (Short Cohort):
 - $0.9000 \times 0.3600 = 0.324$
- Weighted Condition Factor (Short Cohort):
 - $0.5 \times 0.3240 + 0.5 \times 0.3600 = 0.3420$
- Total Average Risk Score for the Health Plan:
 - $0.8 \times 0.36 + 0.2 \times 0.342 = 0.3564$
- Relative Risk Score:
 - $0.3564/0.3652 = 0.9759$

Part iii

- The risk adjustment factor is applied to the actual base capitations after bid admin, risk contingency margin, and premium tax elements have been backed out of the actual base capitation rates. These items are added back after the risk adjustment factor is applied.