GH FVCU Model Solutions
Spring 2021

1. **Learning Objectives:**

5. The candidate will understand how to evaluate the impact of regulation and taxation on companies and plan sponsors in the US.

Learning Outcomes:

(5a) Describe the regulatory and policy making process in the US.

(5b) Describe the major applicable laws and regulations and evaluate their impact.

Sources:

Group Insurance, Skwire, Eighth Edition, 2021, Chapter 4 Health Care Policy and Group Insurance

Commentary on Question:

This question tested candidate knowledge on regulatory and policy making process in the US and how funding differs from other countries. Candidates generally did very well on this question.

Solution:

(a) List "the triple aim" of health policy.

Commentary on Question:
Candidates did well on this section.

Better care for individuals
Better health for populations
Lower per-capital costs

(b) Compare and contrast how health care is financed between US and two of the following four countries:

(i) Canada

(ii) Germany

(iii) England

(iv) Netherlands

1. Continued

Commentary on Question:
Candidates did well identifying the funding in the United States and noting differences with 2 other countries listed. Some candidates did not specify general vs. public funding and discussed types of insurance offered instead.

United States: US is a mix of public and private funding. About 1/3 is from private health insurance, sponsored by employers on behalf of their employees. Another 1/3 is public health funding, made up primarily of Medicare and Medicaid

Canada: All Canadians have access to public provincial health care, funded by tax revenues from the federal government. Roughly 2/3 of Canadians have supplemental private insurance to cover a small portion of services not covered by provincial plans.

England: English health care system is also a single-payer system. NHS funded primarily by taxes pays private general practitioners, hospital based specialists and public hospitals. A mix of for-profit and not-for-profit insurers cover supplemental services, accounting to a small percentage of the country's total spending.

Germany: German health care is financed by private statutory health insurance funds which are on governmental non-profit bodies regulated by law. These are funded by compulsory wage-based contributions from employers and employees, with a complex risk adjustment system. About 10% of Germans are exempt and required to purchase insurance from private health insurers.

Netherlands: In Netherlands, health insurance coverage is mandatory and provided by private health insurers. The statutory health insurance system is financed by a mixture of income-related contributions and premium paid by the insured, and employers must reimburse their employees for this question.

2. Learning Objectives:

6. The candidate will understand how to evaluate retiree group and life benefits in the United States.

Learning Outcomes:

(6a) Describe why employers offer retiree group and life benefits.

(6b) Determine appropriate baseline assumptions for benefits and population.

(6e) Apply actuarial standards of practice to retiree benefit plans.

Sources:

Skwire, Daniel. *Group Insurance, 7th Edition*. Chp. 8: Retiree Group Benefits.

Commentary on Question:

This question tested the candidate's understanding of Retiree Group Benefits through evaluating and comparing various COB methods to support strategic recommendations with proper justification

Solution:

(a) Describe common underwriting considerations with regards to retiree health plans.

Commentary on Question:

Most candidates did well on this part correctly identifying and describing various considerations that factor into underwriting group retiree health plans

- Pre-65 retirees cost much more than actives and their dependents with deductibles/OOPs much more likely to be exceeded
- Post-65 retirees normally have Medicare and may cost less than actives
- Post-65 retiree claims can be more difficult and costly to process because of COB which may require manual adjudication
- Retirees have a higher number of claims and use more administrative resources
- The choice of COB type, while not financially material for active plans, has an enormous financial impact on retiree plans
- Rx for retirees is higher (typically 40-60% of total health costs) relative to actives (typically 15-20% of total health costs)
- Employer subsidization can create selection issues relative to unsubsidized plans
- The individual insurance exchange expands retiree options to obtain affordable health insurance which could impact cost of both exchange products as well as employers' retiree plans

2. Continued

(b) Calculate the 2020 company cost. Show your work.

Commentary on Question:
Most candidates performed well on this part of the question receiving full credit. Some common mistakes were application of trend despite this being a sizing of 2020 company cost or improper calculation of COB.

Medicare Deductible	$185	Employer Deductible	$0
Medicare Coinsurance	80%	Employer Coinsuranc	50%

Group	Group Size	Average Medical Costs	(cost - ded) x (plan co cost x ER coins. Medicare Payment	Company Payment	min(MCR, ER) Standard COB
A	550	$100	$0	$50	$50
B	445	$1,000	$652	$500	$348
C	5	$100,000	$79,852	$50,000	$20,148
Total Company Cost	1000		$689,400	$500,000	$283,100

Total Company Cost = $283,100

(c) Recommend whether Company X should change their coordination of benefits to the exclusion approach in 2021. Justify your answer. Show your work.

Commentary on Question:
Most candidates performed well on this part of the question receiving full credit. Some common mistakes were failure to apply trend to average cost or improper calculation of COB particularly for standard COB. Note the deductible should not be applied under the exclusion COB approach. Below is just one possible recommendation but others were accepted provided proper justification.

Medicare Deductible	$185	Employer Deductible under COB	$1,000	Employer's Deductible under	$0
Medicare Coinsurance	80%	Employer Coinsuranc	50%		
2021 Trend	5%				

Group	Group Size	Average Medical Costs	Medicare Payment	Company Payment	Standard COB	Exclusion
A	550	$105	$0	$0	$0	$53
B	445	$1,050	$692	$25	$25	$179
C	5	$105,000	$83,852	$52,000	$21,148	$10,574
Total Company Cost	1000		$727,200	$271,125	$116,865	$161,400

C = Covered expenses (Average Medical costs)
M is the Medicare Payment := (cost - MCR ded) x (MCR coins.)
% means applying the ER plans:= cost x ER coins (after deductible, if applicable)
Standard COB = Min (C x %, C - M)
Exclusion = (C - M) x %

Recommendation: Company X can reduce their expected costs more significantly under a move to Standard COB in 2021 and should therefore keep Standard COB. This will address their concern regarding high costs of the retiree plan.

2. Continued

(d) Draft a memorandum to the client explaining your decision on whether to keep or change your recommendation from part (c). Justify your answer. Show your work.

Commentary on Question:
The key to part d) was applying the same methodology as part c) but under the adjusted group sizes. Given the request in part d) was for a memorandum draft, a more comprehensive response was expected relative the recommendation and justification in part c). Candidates were expected to draft a proper actuarial memorandum with restatement of the problem, a recommendation/justification, and an addressee and signature. Most candidates performed well on this part of the question, but some did not provide the level of communication desired given the request for a memorandum draft. Below is just one possible recommendation but others were accepted provided proper justification.

Medicare Deductible	$185	Employer Deductible under COB	$1,000	Employer's Deductible under exclusion	$0
Medicare Coinsurance	80%	Employer Coinsurance	50%		
2021 Trend	5%				

Group	Group Size	Average Medical Costs	Medicare Payment	Company Payment	Standard COB	Exclusion
A	550	$105	$0	$0	$0	$53
B	440	$1,050	$692	$25	$25	$179
C	10	$105,000	$83,852	$52,000	$21,148	$10,574
Total Company Cost	1000		$1,143,000	$531,000	$222,480	$213,375
				Difference from 2020	-$60,620	-$69,725
				% change from 2020	-21%	-25%

C = Covered expenses (Average Medical costs)
M is the Medicare Payment := (cost - MCR ded) x (MCR coins.)
% means applying the ER plans:= cost x ER coins (after deductible, if applicable)
Standard COB = Min (C x %, C - M)
Exclusion = (C - M) x %

Actuarial Memorandum:
To: Company X
From: FSA Candidate
RE: 2021 COB Recommendation

After receiving additional information that five members of Group B are expected to be high cost claimants in 2021, prior modeling has been revised to include these members in the higher cost, Group C. While costs increase overall under both methods (Standard and Exclusion), under the revised calculations the exclusion coordination method now results in lower costs for Company X than the standard coordination method. Based on this new information, it is recommended that Company X switch to the exclusion COB method for 2021 which would result in estimated savings of approximately $9,000 relative to standard COB.

2. Continued

Note that this analysis is reliant on the accuracy of the claim costs and membership distribution supplied by Company X. Any material change from what was provided could significantly impact total estimated costs and this recommendation.

3. Learning Objectives:

5. The candidate will understand how to evaluate the impact of regulation and taxation on companies and plan sponsors in the US.

Learning Outcomes:

(5b) Describe the major applicable laws and regulations and evaluate their impact.

Sources:

Group Insurance, Skwire, Daniel D., 7th Edition, 2016, Chapter 15

Commentary on Question:

Candidates generally performed well on this question, but some had difficulty properly elaborating on their recommendations. Candidates who performed well provided extra details and properly justified their answers. Candidates who struggled tended to have difficulty with the mathematical portion of the question and failed to properly identify when a company is in a difficult financial position.

Solution:

(a) List and describe three types of measures US regulators use to assess insurer solvency.

Commentary on Question:

Candidates were generally able to correctly identify the three measures, however some struggled to provide sufficient detail that helped demonstrate their knowledge of the topic.

Capital requirements – Insurers are required to meet minimum capital requirements before beginning operations in a particular regulatory jurisdiction. State regulators use Risk Based Capital formulas that vary by life insurance, property and casualty, and various types of managed care organizations.

Guaranty funds – The funds make a monetary assessment of all similar insurers to cover some of the financial consequences of insolvency.

Reserves – Requirement of adequate levels of reserves for future payment of current liabilities. Examples include claim reserves and liabilities, contract reserves, provider liabilities, and premium deficiency reserves.

(b)

(i) Assess the company's solvency position. Show your work.

(ii) Recommend any possible actions for the company due to the solvency position in part i). Justify your answer.

3. Continued

Commentary on Question:
Many candidates were able to perform the math to determine the solvency position of the company. However, many struggled to offer a recommendation that may assist the company. Describing how to mathematically change the formula to satisfy the 200% requirement without providing details on how that change would happen did not score any points.

RBC = $15M * 25.1% + $3M * 7.6% = $3.993M
TAC = $7M
Ratio = $7M / $3.993M = 175%
Insurer is insolvent based on the 200% requirement

Possible actions for the company include, but are not limited to:
Placing the business into runoff mode, where no business can be sold until the capital position returns to adequate levels.
Liquidation of the company.
Liquidation of a portion of the company to improve capital position.
Use of guaranty funds.

4. Learning Objectives:

4. The candidate will understand how to prepare and be able to interpret insurance company financial statements in accordance with U.S. statutory principles and GAAP.

Learning Outcomes:

(4a) Prepare financial statement entries in accordance with generally accepted accounting principles.

Sources:

GHFV-109-19: Health Insurance Accounting Basics for Actuaries

Commentary on Question:

This question tested the candidates on calculation of refunds on a specified Share Return product and the corresponding impact on the income statement and balance sheet. A majority of the candidates did well on determining loss ratios. Many candidates failed to take prior year experience into consideration. Most candidates had difficulty identifying how the refunds are reflected on the income statement and balance sheet.

Solution:

(a) Describe some benefits and drawbacks of this new product for:

(i) Royale Health

(ii) A large group employer client

Commentary on Question:

There was some confusion around the clients moving from the current ASO plan to the SR plan. Many comparisons were made against a fully insured plan as opposed to the ASO plan that they are currently on.

(i) Royale Health

- Benefits
  - Insurer can possibly charge higher premium (because it is taking on higher risk)
  - Refund agreement implies a longer relationship with client
- Drawbacks
  - Complicated product could be difficult to administer financially
  - Insurer now has responsibility of keeping claims costs low (e.g. utilization management, care management, etc.)

4. Continued

(ii) A large group employer client
- Benefits
  - More predictability and protection from claims volatility
  - No need to hold as large of a claims reserve (frees up cashflow)
  - Continued benefit of favorable morbidity
- Drawbacks
  - Higher monthly payments that now include premium tax and larger insurer profit load
  - Opportunity cost of not receiving refund until year-end
  - Less flexibility in product design

(b) Calculate the refund that Royale Health owes to its clients on 12/31/2019 for calendar year 2019. Show your work.

Commentary on Question:
Most candidates were able to calculate 2019 loss ratios and identify which clients were in a surplus or deficit position but few candidates remembered to evaluate 2018 experience and factor any deficits into the final refund for 2019.

($ in thousands)	**Client A**	**Client B**	**Client C**	**Client D**	**Client E**
Contract Effective Date	1/1/2018	1/1/2018	1/1/2018	1/1/2018	1/1/2018
2018 Annual Earned Premium	$1,000	$1,500	$2,000	$2,500	$3,000
2019 Annual Earned Premium	$1,200	$1,700	$2,200	$2,700	$3,200
2020 Annual Earned Premium	$1,400	$1,900	$2,400	$2,900	$3,400
Insurer's Expected Annual Loss Ratio	85%	85%	85%	95%	80%
Loss Ratio Floor	80%	80%	80%	90%	75%
Loss Ratio Ceiling	90%	90%	90%	100%	85%
Claims:					
1Q'18	$215	$300	$1,000	$750	$800
2Q'18	$215	$300	$500	$750	$800
3Q'18	$215	$300	$500	$750	$900
4Q'18	$215	$300	$500	$750	$900
1Q'19	$250	$275	$250	$600	$1,000
2Q'19	$250	$275	$250	$600	$1,000
3Q'19	$250	$275	$250	$600	$1,000
4Q'19	$250	$275	$250	$600	$1,000
1Q'20	$275	$275	$250	$600	$1,000
2Q'20	$275	$275	$250	$600	$1,000

2018 Loss Ratio	86.0%	80.0%	125.0%	120.0%	113.3%	
2018 Surplus:	$0	$0	$0	$0	$0	
2018 Deficit:	$0	$0	$700	$500	$850	
2019 Loss Ratio	83.3%	64.7%	45.5%	88.9%	125.0%	
2019 Surplus:	$0	$260	$760	$30	$0	
2019 Deficit:	$0	$0	$0	$0	$1,280	
Net Surplus to Clients in Dec 2019:	$0	$260	$60	$0	$0	**$320**

(c) Assess the impact of the 2019 refund on Royale Health's:

(i) Income Statement

(ii) Balance Sheet

Commentary on Question:
Many candidates had difficulty identifying which parts of the financial statements would be impacted and the direction of the impacts. Many candidates failed to relate their answers to Royale Health's refund and wrote about financial statements more generally.

- Income Statement
  - Recognize that refund is settled through premium, not claims
  - Debit Earned Premium reduces Total Revenue (and hence, Net Income) by $320k
- Balance Sheet
  - Recognize that refund will reduce Retained Earnings by $320k as well as a corresponding decrease in asset or increase in liability/lower cash or higher current liability

(d) Calculate the Refund Reserve for Royale Health as of 06/30/2020 using:

(i) The year-to-date method

(ii) The pro-rated ultimate method

Show your work.

Commentary on Question:
Candidates generally did a good job calculating the LR for the year-to-date method but some struggled more with the prorated method. Most candidates failed to acknowledge that 2019 deficits must be considered in setting reserves. Some candidates used the full annual premium as opposed to the half that should have been used.

4. Continued

($ in thousands)	**Client A**	**Client B**	**Client C**	**Client D**	**Client E**
Contract Effective Date	1/1/2018	1/1/2018	1/1/2018	1/1/2018	1/1/2018
2018 Annual Earned Premium	$1,000	$1,500	$2,000	$2,500	$3,000
2019 Annual Earned Premium	$1,200	$1,700	$2,200	$2,700	$3,200
2020 Annual Earned Premium	$1,400	$1,900	$2,400	$2,900	$3,400
Insurer's Expected Annual Loss Ratio	85%	85%	85%	95%	80%
Loss Ratio Floor	80%	80%	80%	90%	75%
Loss Ratio Ceiling	90%	90%	90%	100%	85%
Claims:					
1Q'18	$215	$300	$1,000	$750	$800
2Q'18	$215	$300	$500	$750	$800
3Q'18	$215	$300	$500	$750	$900
4Q'18	$215	$300	$500	$750	$900
1Q'19	$250	$275	$250	$600	$1,000
2Q'19	$250	$275	$250	$600	$1,000
3Q'19	$250	$275	$250	$600	$1,000
4Q'19	$250	$275	$250	$600	$1,000
1Q'20	$275	$275	$250	$600	$1,000
2Q'20	$275	$275	$250	$600	$1,000

YTD June 2020 LR	78.6%	57.9%	41.7%	82.8%	117.6%	
Prorated 2020 LR	81.8%	71.4%	63.3%	88.9%	98.8%	
YTD Surplus Reserve	$10	$210	$460	$105	$0	
Prorated Surplus Reserve	$0	$81	$200	$16	$0	
2019 Deficit	$0	$0	$0	$0	$1,280	
YTD Refund Reserve	$10	$210	$460	$105	$0	**$785**
Prorated Refund Reserve	$0	$81	$200	$16	$0	**$298**

(e) Explain four alternatives that Royale Health can use to reduce its large group employer clients' risk. Justify your response.

Commentary on Question:
Candidates generally did well on this section but more than a few candidates focused on changing the floor and ceiling loss ratios instead of identifying true alternatives.

4. Continued

- Fully insured contract
  - employer only pays monthly premium, with all risk taken by insurer.
- Reinsurance/Stop loss protection
  - employer keeps the ASO arrangement, but caps it's catastrophic risk.
- Managed care plans
  - shift to capitated providers or narrower network; sacrifices access but gives more claims stability.
- Plan design

shift costs to employees (higher deductibles or coinsurance/copays)

5. Learning Objectives:

3. The candidate will understand how to describe and evaluate government programs providing health and disability benefits in the U.S.

Learning Outcomes:

(3a) Describe Medicare benefits and evaluate pricing and filing.

Sources:

GHFV-817-20: KFF brief - §1115 Medicaid Demonstration Waivers

ASOP 49

GHFV-812-16: Medicaid: A Primer

Commentary on Question:

Describe Medicaid program structure and benefits and evaluate pricing and filing Calculate the impact of changing the structure of rate cells, while exploring waivers and EPSDT benefit

Solution:

(a) Describe the EPSDT benefit and its purpose.

Commentary on Question:

Candidates did poorly on this section. While most got partial credit for stating something about EPSDT very few hit these specific bullets.

- Mandatory pediatric benefit unique to Medicaid enrollees under age 21 – Early and Periodic Screening, Diagnostic and Treatment –
- Covers services particularly important on an ongoing basis for children with disabilities (PT, personal care, DME) that often have service limits in private insurance
- Includes diagnostic services and treatment necessary to correct or ameliorate chlidren's acute and chronic physical and mental health conditions
- Conception of medical necessity is expansive to promote children's health development – service limits that typically apply to adults do not apply to children

(b) Explain public policy reasons why this waiver approval necessitates a change in rate cells.

Commentary on Question:

Candidates did poorly on this section. While most candidates gave actuarial/rating reasons for the change in rate cells few addressed the "public policy reasons".

5. Continued

- Waivers must be budget neutral for the federal government
- Federal costs under a waiver must not exceed what federal costs would have been for that state without the waiver
- Budget neutrality is enforced by establishing a cap on federal funds under the waiver, putting the state at risk for increases in per member per month costs.
- Capitation rates must be actuarially sound

(c) Calculate the projected 19-25 year old statewide medical cost without EPSDT. Show your work.

Commentary on Question:
Candidates generally did well on this section. They did not have to calculate the PMPM to get full credit since the question asks for "medical cost" and not necessarily a PMPM. There were several ways to calculate the correct answer. Partial credit was given if they at least calculated the 21-25 cost.

Medical (Excluding EPSDT) for Age Range 16-20 = 181.42 = (6,000/8,000)*172.35 + (2,000/8,000)* *Medical (Excluding EPPSDT Costs) for Age 19-20*

208.63	Solved for Medical (Excluding EPSDT Costs for Age 19-20)	
Age Range	Medical (Excluding EPSDT)	MMOS
19-20	208.63	2,000
21-25	250.45	4,000
236.51	Medical (Excluding EPSDT) Cost PMPM for Age 19-25 = SUMPRODUCT(Medical Cost, MMOS)/SUM(MMOS) for Age 19-25	
6,000	MMOS Age 19-25	
1419060	Statewide Projected Medical Cost age 19-25 no EPSDT =Medical Cost (Excluding EPSDT) PMPM * MMOS	

(d) Calculate the total statewide composite PMPM, including EPSDT and non-benefit costs.

(i) Before the waiver approval

(ii) After the waiver approval

Show your work.

Commentary on Question:
Candidates generally did well on this section. A common mistake was to forget to gross up the final answer for the LR of 90% (did not divide final answer by .9).

5. Continued

Before Waiver Approval

Age range	Medical (excluding EPSDT)	EPSDT portion	Cost PMPM = Medical Excluding EPSDT + EPSDT Portion	MMOS
16-20	$181.42	$2.50	$183.92	8,000
21-25	250.45	-	$250.45	4,000

206.0966667 Claim Cost PMPM Including EPSDT Before Waiver Approval

90% Medical Loss Ratio

229.00 Expected Total Composite Cost PMPM = Claim Cost PMPM / Medical Loss Ratio (Before Waiver Approval)

After Waiver Approval

Age range	Medical (excluding EPSDT)	EPSDT portion	Cost PMPM = Medical Excluding EPSDT + EPSDT Portion	MMOS
16-18	$172.35	$2.50	$174.85	6,000
19-25	236.51	-	$236.51	6,000

205.68 Claim Cost PMPM Including EPSDT Before Waiver Approval

90% Medical Loss Ratio

228.53 Expected Total Composite Cost PMPM = Claim Cost PMPM / Medical Loss Ratio (After Waiver Approval)

(e) Calculate your MCO's statewide composite PMPM, including EPSDT and non-benefit costs.

(i) Before the waiver approval

(ii) After the waiver approval

Show your work.

Commentary on Question:
Candidates generally did well on this section. A common mistake was to forget to gross up the final answer for the LR of 90% (did not divide final answer by .9). Another common error was using the wrong population distribution.

5. Continued

Before Waiver Approval

Age range	Medical (excluding EPSDT)	EPSDT portion	Cost PMPM = Medical Excluding EPSDT + EPSDT Portion	MCO's MMOS = Statewide MMOS * MCO's Share
16-20	$181.42	$2.50	$183.92	2500
21-25	250.45	-	$250.45	1000

$202.93 Claim Cost PMPM Including EPSDT Before Waiver Approval

90% Medical Loss Ratio

225.48 Expected MCO Composite Cost PMPM = Claim Cost PMPM / Medical Loss Ratio (Before Waiver Approval)

After Waiver Approval

Age range	Medical (excluding EPSDT)	EPSDT portion	Cost PMPM = Medical Excluding EPSDT + EPSDT Portion	MCO's MMOS = Statewide MMOS * MCO's Share
16-18	$172.35	$2.50	$174.85	1,800
19-25	236.51	-	$236.51	1,700

204.7991429 Claim Cost PMPM Including EPSDT Before Waiver Approval

90% Medical Loss Ratio

227.55 Expected MCO Composite Cost PMPM = Claim Cost PMPM / Medical Loss Ratio (After Waiver Approval)

6. Learning Objectives:

5. The candidate will understand how to evaluate the impact of regulation and taxation on companies and plan sponsors in the US.

Learning Outcomes:

(5a) Describe the regulatory and policy making process in the US.

(5b) Describe the major applicable laws and regulations and evaluate their impact.

(5c) Apply applicable standards of practice.

Sources:

Implications of Individual Subsidies in the Affordable Care Act - What Stakeholders Need to Understand, Health Watch, May 2014

Group Insurance, Skwire, Eighth Edition, 2021, Chapter 18 The Affordable Care Act

ASOP 8, 50

Commentary on Question:

This question tested the candidate's knowledge on how the Affordable Care Act (ACA) changed regulations and rating practices. Candidates did well on the question overall.

Solution:

(a) Describe four ways that the Affordable Care Act (ACA) impacted Individual Rates.

Commentary on Question:

Candidates were asked to describe 4 of the items listed. Some candidates simply listed items without explaining the impact on individual rating.

Rate Review – Exchange qualified plans must be reviewed at the federal level in addition to the state-level reviews that were previously required.

Minimum Loss Ratio – An 80% minimum loss ratio must be met in both the individual and small group markets. Loss ratios below 80% result in refunds to policyholders

Individual Mandate – A tax penalty applies to individuals who do not enroll in "minimum essential coverage"

Metal Tiers – Plans sold in the individual and small group markets are required to meet an actuarial value criterion that allows consumers to compare benefit values across issuers to increase transparency. Plans must fit into one of four tiers: bronze, silver, gold or platinum

6. Continued

Risk Adjustment – Risk adjustment was introduced across each market in each state, and is intended to have issuers compete on their ability to provide affordable care and an efficient administrative system, rather than their ability to attract a less risky membership.

Premium subsidies – Premium subsidies are offered to individuals who meet the following requirements:

- Individual must have an income level between 100% and 400% of the Federal Poverty Level
- Individual must purchase a plan in an individual exchange
- Individual is not eligible for other coverage

Cost Sharing Subsidies – Cost sharing subsidies are available only for individuals with incomes below 250% of the federal poverty level who select a silver plan in the exchange.

Age Rating Compression and Gender Neutrality – The ACA prescribes a 3:1 age rating limit. It also prohibits rating differently based on gender. The ACA prescribes a common rate slope across issuers in each state.

Essential health Benefits – All qualified health benefits plans offered inside or outside the exchanges, for individual and small group plans, are required to offer an essential health benefits package.

Pre-existing Conditions – The ACA does not allow health insurance companies to refuse coverage or charge more just because of pre-existing conditions.

(b) Describe how the following Actuarial Standards of Practice applied to your company's rate filings for individual plans:

(i) ASOP 8

(ii) ASOP 50

Commentary on Question:
Most candidates effectively described how these ASOPs apply to individual health rate filings. Candidates who struggled either did not describe the appropriate ASOP or did not provide an adequate description.

ASOP 8 – This standard applies to actuaries when performing professional services with respect to preparing or reviewing health filings, as defined in section 2.5, required by and made to state insurance departments, state health departments, the federal government (including those required by the Affordable Care Act), and other regulatory bodies.

6. Continued

ASOP 50 – This standard applies to actuaries performing professional services with respect to calculating actuarial values and testing minimum value requirements in accordance with the ACA and related regulations

(c) Calculate the premium rates that this individual was required to pay for the lowest cost option at each metallic level. Show your work.

Commentary on Question:
Candidates frequently used 2014 income information for calculating the Federal Poverty Level rather than 2013 income. Partial credit was given if 2014 information was used correctly to calculate the net premium.

Federal Poverty Level = 2013 Income ÷ 2013 Federal Poverty Level Amount = $31,597.50 ÷ $11,490.00 = 275%

Maximum Percent of Income = Interpolation of 250% FPL and 300% FPL = 50% × 8.05% + 50% × 9.50% = 8.775%

Maximum Contribution = FPL Amount × FPL Level × Maximum Percent of Income ÷ 12 = $11,490 × 275% × 8.775% ÷ 12 = $231.06

Calculated Subsidy = Benchmark Plan (Second Lowest Silver Plan) – Maximum Contribution = $324.88 – $231.06 = $93.82

Individual's Net Premium = Premium Rate – Premium Subsidy:

Metal Tier	Premium Rate	Net Premium
Bronze	$250.11	$156.29
Bronze	$277.14	$183.32
Silver	$295.22	$201.40
Silver	$324.88	$231.06
Silver	$341.11	$247.29
Gold	$350.11	$256.29
Gold	$372.11	$278.29
Platinum	$404.10	$310.28

(d) Describe two other types of premium and cost sharing assistance available in all post-ACA markets and the requirements to qualify for each program under ACA in 2014.

Commentary on Question:
Many candidates identified two of the examples of premium and cost sharing assistance below. Candidates who struggled with this question often provided incorrect qualification requirements or did not provide enough detail.

6. Continued

Premium Subsidies for Individuals – Premium credits are available to qualified individuals and families with incomes between 133% - 400% of the federal poverty level (FPL) for qualified coverage purchased through the exchanges. Employees are not eligible for premium credits if their employer offers coverage, unless that employer plan does not have an actuarial value of at least 60%, or if the employee share exceeds 9.5% of the premium.

Cost Sharing Reductions – These plan design subsidies are available to individuals and families for plans purchased through the exchanges. Currently, individuals and families with incomes up to 250% of the FPL. CSR plans reflect lower cost-sharing amounts and limits, and are established as variations of silver plans, with targeted actuarial values of 94%, 87% and 73%.

Small Business Tax Credits – Employers with 25 or fewer employees and average annual wages of less than $50,000 can receive a tax credit if they purchase health insurance for employees through the SHOP exchange. Beginning in 2014, employees are required to contribute at least 50% of the total premium cost. The maximum credit is 35% of the employer's contribution to employers with 10 or fewer employees and average annual wages of less than $25,000.

7. Learning Objectives:

4. The candidate will understand how to prepare and be able to interpret insurance company financial statements in accordance with U.S. statutory principles and GAAP.

Learning Outcomes:

(4a) Prepare financial statement entries in accordance with generally accepted accounting principles.

(4b) Interpret the results of both statutory and GAAP statements from the viewpoint of various stakeholders, including regulators, senior management, investors.

(4d) Apply applicable standards of practice.

Sources:

GHFV-109-19: Health Insurance Accounting Basics for Actuaries and ASOP 21

Commentary on Question:

Commentary listed underneath question component.

Solution:

(a) Construct a quarterly statutory pretax income statement for each quarter for XYZ. Show your work.

Commentary on Question:

Generally, candidates were able to develop a pretax income statement. The most common mistake on this question was the appropriate handling of the change in advanced premium and change in due premium. Many candidates included the full amount rather than the change.

	Q1	Q2	Q3
Collected Premium	6,000	6,000	6,000
Change in Adv Premium	100	200	0
Change in Due Premium	300	-200	100
Earned Premium	6,200	5,600	6,100
Paid Claim	1550	3150	3300
Change in Claim Liability	500	900	400
Change in Reserve	1200	300	300
DAC	0	0	0
Pre-tax Income	2,950	1,250	2,100

- Earned Premium = Collected Premium + Change in Premium Due Balance – Change in Premium Advance Balance

7. Continued

- Incurred Claims = Paid Claims + Change in Claims Liability
- Because this is a Statutory Statement, DAC is not included

(b) XYZ wants to protect itself against excessive risk.

(i) Describe how US health insurers can use contractual vehicles to transfer risk to another party.

(ii) Explain how XYZ's pretax income statement will need to be adjusted under each type of risk transfer vehicle.

Commentary on Question:
Generally, candidates were successful in part (i) of this question and were able to identify contractual vehicles to transfer risk. Candidates earned more credit by providing additional details and describing the vehicles rather than listing. Part (ii) of the question, candidates struggled providing specific adjustments to the income statement. Candidates could have achieved more points by detailing each entry that would have been made and in which way the vehicle impacted that entry.

- Part (i)
  - Use reinsurance to transfer portion of the risk to another insurer
  - There are two generic types of reinsurance treaties: quota share reinsurance and excess-of-loss reinsurance
    - Quota Share: one insurer assumes a pro rata portion of the risks arising from a set of insurance contacts written by another insurer
    - Excess-of-loss: to cap the risk borne by the insurer on any particular exposure.
    - Common health insurance contracts pre-ACA are to specify a max limit on the amount (attachment point) that could be paid on behalf of a given insured individual (for example $500k)
  - Another important risk transfer vehicle is capitation arrangement, which transfers risk to providers
    - Typical capitation arrangement are PMPM cap or %-of-premium cap; global or specific services (for example Mental Health cap)
- Part (ii)
  - Besides the regular income statement entries (called gross), we need separate entries for the corresponding ceded amounts and the net (gross - ceded).
    - Ceded earned premium
    - Ceded paid claims
    - Change in ceded claim liabilities
    - Change in disabled life reserves / policy reserves
    - Expense allowances received from reinsurer

7. Continued

(c) Describe what you should consider when responding to the request for information, in compliance with applicable Actuarial Standards of Practice.

Commentary on Question:
Candidates performed well on part (c) and were successfully able to list the considerations of ASOP 21.

- The extent to which the information requested is readily available.
- If the information requested is not readily available, what other information is available or reasonably can be produced that can meet the auditor's or examiner's needs; and whether the information requested is within the scope of the financial audit, financial review, or financial examination.
- To the extent practicable, the responding actuary should consider working with the auditor or examiner if there are conflicts or time frames that cannot be met.

8. Learning Objectives:

3. The candidate will understand how to describe and evaluate government programs providing health and disability benefits in the U.S.

Learning Outcomes:

(3a) Describe Medicare benefits and evaluate pricing and filing.

Sources:

Medicare Advantage: Changes and Updates to Enhanced Benefits, Health Watch, Feb 2019

Commentary on Question:

Candidates generally struggled on this question. Many appeared to have difficulties understanding what was being requested. Candidates who performed well on this question elaborated on their responses rather than providing short comments.

Solution:

(a)

(i) Explain the purpose of supplemental benefits in Medicare Advantage (MA) plans.

(ii) List the Center for Medicare and Medicaid Services (CMS) conditions that that these supplemental benefits must meet.

Commentary on Question:

Candidates generally did well on this portion of the question. However, some struggled to properly identify the correct conditions that supplemental benefits must meet.

These benefits reduce cost sharing below original Medicare levels and/or provide items and services that are not covered under original Medicare. MAOs offer these additional items and services to attract and retain members, encourage health behaviors, and incentivize the appropriate use of healthcare services.

Conditions include:
Not be covered by original Medicare
Be primarily health related
Incur a medical cost for providing the benefit

(b)

(i) Describe options that CMS added to expand the definition of what could qualify as a supplemental benefit in the 2019 final call letter.

(ii) Describe four examples of supplemental benefits that became permissible in the 2019 final call letter.

8. Continued

Commentary on Question:
Many candidates were able to identify the options CMS added in the 2019 final call letter. However, many struggled to provide appropriate examples and descriptions. Additional answers were accepted, if appropriate.

Options to expand include:
Diagnose, prevent or treat an illness or injury, or compensate for physical impairments
Act to ameliorate the functional and/or psychological impact of injuries or health conditions
Reduce avoidable emergency and health care utilization

Examples include, but are not limited to,
Adult day care services – assistance with activities of daily living (ADLs) and social work services provided at an adult day care center that help with specific injuries or health conditions are permitted.
In-home support services – assist individuals with disabilities or medical conditions in performing ADLs.
Respite care – may be provided for caregivers of members for a short duration to improve injuries or health conditions of members or to reduce avoidable health care utilization.
Transportation – Nonemergency transportation may be provided to obtain plan-covered health care services.

(c) Explain how plans became able to tailor part C benefits based on the health status of a member due to CMS guidance in 2019.

Commentary on Question:
Many candidates were able to describe some of the reasons listed below.

CMS now permitted plans to provide different benefits or cost sharing based on a member's health status as long as similarly situated individuals are treated uniformly.
Flexibility must be uniformly applied to all members within a certain health status, and plans may only change benefits, not premiums.
Any benefit enhancement must be for health care services related to a specific disease or condition.
Members receiving enhanced benefits must have their disease or condition documented by a plan provider.
Flexibility is not unlimited, as plans cannot deny or limit services based on health criteria.