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GH 101 Benefits and Pricing Comprehensive Summary

1st Edition

Josh B. Collins, FSA, MAAA

An SOA Exam

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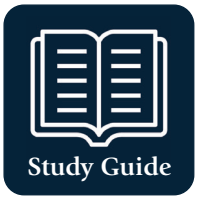

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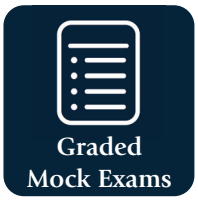

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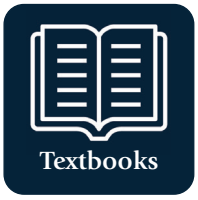

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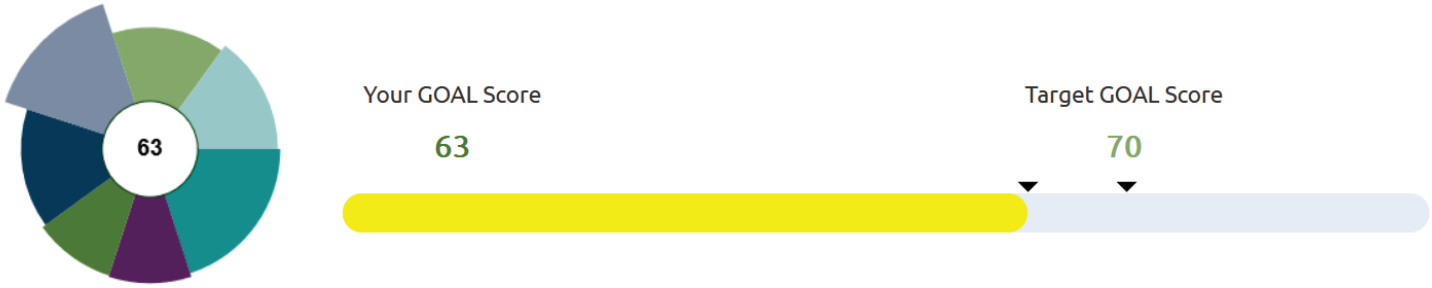

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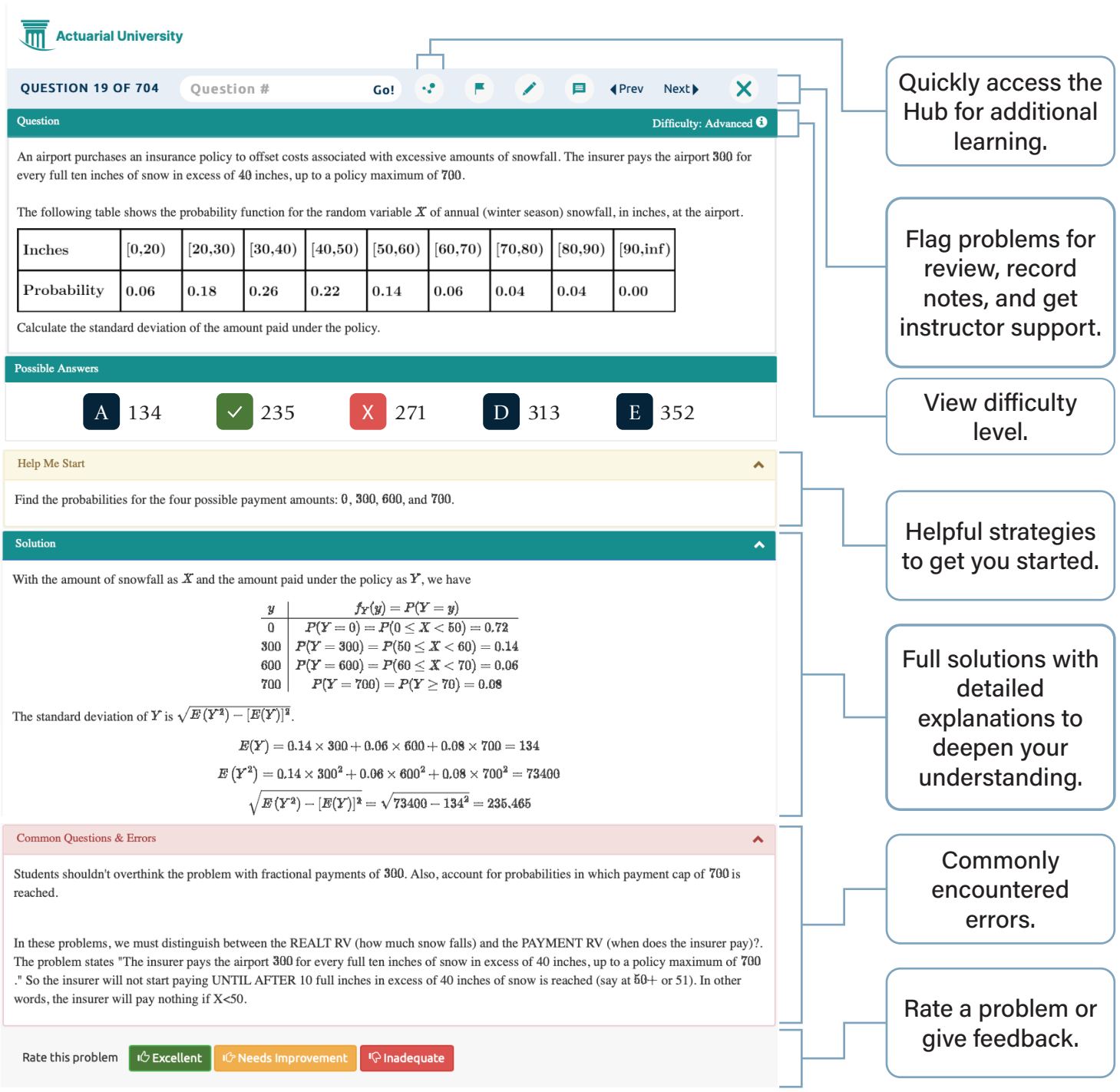

Actuarial University

QUESTION 19 OF 704 | Question # | Go! | Prev | Next

Question — Difficulty: Advanced

An airport purchases an insurance policy to offset costs associated with excessive amounts of snowfall. The insurer pays the airport 300 for every full ten inches of snow in excess of 40 inches, up to a policy maximum of 700.

The following table shows the probability function for the random variable X of annual (winter season) snowfall, in inches, at the airport.

Inches	[0,20)	[20,30)	[30,40)	[40,50)	[50,60)	[60,70)	[70,80)	[80,90)	[90,inf)
Probability	0.06	0.18	0.26	0.22	0.14	0.06	0.04	0.04	0.00

Calculate the standard deviation of the amount paid under the policy.

Possible Answers

A 134 ✓ 235 X 271 D 313 E 352

Help Me Start

Find the probabilities for the four possible payment amounts: 0, 300, 600, and 700.

Solution

With the amount of snowfall as X and the amount paid under the policy as Y, we have

y	$f_Y(y) = P(Y = y)$
0	$P(Y = 0) = P(0 \le X < 50) = 0.72$
300	$P(Y = 300) = P(50 \le X < 60) = 0.14$
600	$P(Y = 600) = P(60 \le X < 70) = 0.06$
700	$P(Y = 700) = P(Y \ge 70) = 0.08$

The standard deviation of Y is $\sqrt{E(Y^2) - [E(Y)]^2}$.

$$E(Y) = 0.14 \times 300 + 0.06 \times 600 + 0.08 \times 700 = 134$$

$$E(Y^2) = 0.14 \times 300^2 + 0.06 \times 600^2 + 0.08 \times 700^2 = 73400$$

$$\sqrt{E(Y^2) - [E(Y)]^2} = \sqrt{73400 - 134^2} = 235.465$$

Common Questions & Errors

Students shouldn't overthink the problem with fractional payments of 300. Also, account for probabilities in which payment cap of 700 is reached.

In these problems, we must distinguish between the REALT RV (how much snow falls) and the PAYMENT RV (when does the insurer pay)?. The problem states "The insurer pays the airport 300 for every full ten inches of snow in excess of 40 inches, up to a policy maximum of 700 ." So the insurer will not start paying UNTIL AFTER 10 full inches in excess of 40 inches of snow is reached (say at 50+ or 51). In other words, the insurer will pay nothing if X<50.

Rate this problem | Excellent | Needs Improvement | Inadequate

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NOTES

This comprehensive summary is design for the GH 101 – Benefits and Pricing (GH 101) fellowship exam administered by the Society of Actuaries (SOA).

The comprehensive summary includes summaries of each of the resources listed in the GH 101 syllabus including the study notes, online readings, textbooks, videos and module content with an assigned learning objective. Note, the first three resources on the syllabus are provided as *background* material and summaries are not included in the comprehensive summary; however, links to the SOA videos are included and recommended to be watched as you begin your studying.

Every exam taker will have their own preference in approaching the material. The comprehensive summary is ordered by the topics and resources provided on the SOA syllabus, but the SOA also provides an additional strategy guide with an alternate recommended order for reviewing the resource material. The SOA guide also highlights certain sections in yellow for emphasis:

https://www.soa.org/49ae2a/globalassets/assets/files/edu/2025/fall/strat-guide/2025-11-gh-101-strat-guide.pdf

Although I have made every effort to provide a comprehensive overview of each resource and eliminate errors, issues may exist. I encourage students who find errors to bring them to my attention and I welcome any other feedback.

I wish you the best of luck on your exam success!

Josh B. Collins, FSA, MAAA

Contents

Topic 1

Plan and Product Provisions

(10% – 20%)

Learning Objectives

The candidate will understand how to describe plan provisions typically offered under short-duration contracts (medical, dental, vision, prescription, group life).

Learning Outcomes

The candidate will be able to:

a) Describe typical organizations offering these contracts.

b) Describe each of the contracts listed above.

c) Evaluate the potential moral hazard and the financial and legal risks associated with each type of contract.

d) Describe the product development process, including risks and opportunities to be considered during the process.

Background Videos for Topic 1

Video: The Variety of Short-Term Health and Group Benefits

https://www.soa.org/prof-dev/recordings/2025/march/variety-short-term-group-health/

Video: Plan Sponsor Perspective

https://www.soa.org/prof-dev/recordings/2025/march/plan-sponsor-perspective/

Video: Actuarial Roles in Health

https://www.soa.org/prof-dev/recordings/2025/march/actuarial-roles-health/

GROUP INSURANCE, SKWIRE, DANIEL D. 8TH EDITION, 2021 – CH. 5 MEDICAL BENEFITS IN THE UNITED STATES

A medical plan can be defined or categorized based on three dimensions.

1st Dimension of a medical plan

Represents the definition of covered services and conditions under which the services are covered. This dimension includes the following elements.

1. Definition of the incurral date
    a. Date of service for professional services
    b. Date of admission for inpatient hospital services
    c. Date of service for all covered services
        – Definition is more restrictive as hospital charges incurred after a lapse in coverage would be denied
    d. Date of disability onset (Disability Income, LTC)
    e. Date a claim was paid (Excess Risk, Stop Loss)
        – Liability attaches on a paid or paid and service date basis (i.e. Incurred in 12/Paid in 15 contract)
    f. Extended benefit provision
        – Applies when there is a disability at contract termination
        – Coverage is stated in terms of the number of days or to the end of an institutional stay that commences prior to termination
        – Benefits are medical services related to the disability
2. Covered services and limitations/exclusions to those covered services
    a. Subject to regulatory requirements (DOI, ERISA, Federal government, ACA)
    b. Insured medical plans are regulated by the DOI
    c. Self-funded plans are regulated under ERISA

- States may regulate certain aspects of the plan

d. HMOs are regulated by the DOI or by another entity
   - Benefit requirements may be more restrictive or more liberal vs. insured plans

e. Federal regulation of benefit provisions and operational practices (i.e. mental health parity, minimum stays required for maternity)

f. The ACA
   - Full coverage for a standardized set of preventive services
   - Lifetime and annual limits are prohibited
   - Limits on maximum out-of-pocket costs for in-network services
   - Coverage for Essential health benefits (EHBs)

3. Covered facilities

a. Hospital inpatient services
   - Include inpatient admission for medical, surgical, and maternity admissions
   - Benefits include the cost of average semi-private room & board and ancillary charges
   - ICU and recovery rooms charges are based on a multiple of average semi-private room charges
   - Pre-certification or concurrent review may be required
     i. Pre-approval for the number of days of hospital stay
     ii. Decision is based on the medical appropriateness of the admission and the requested length of stay

b. Emergency room
   - Triggering treatment event for the emergency is required (i.e. treatment due to accidental injury)

c. Outpatient surgery
   - Usually covered at full charges or requires member cost sharing
   - Outpatient surgery is mandatory for certain procedures
   - Pre-certification requirements may apply
   - Plan design approaches to increase utilization (i.e. increase benefit payable, lower/eliminate member cost sharing)

d. Psychiatric admissions and alcohol & drug treatment
   - Fixed dollar benefit maximums are prohibited

- The level of reimbursement or the number of services provided can be limited
- Internal coverage maximums, visit limits, and member cost sharing for mental health conditions must be similar to other medical services
- Services performed in a facility or by a licensed provider
- Federal mental health parity requirements also apply to individual and small group coverage (ACA)

e. Skilled nursing facility
- Performed in a licensed facility that provides skilled nursing care
- SNF admission replaces the hospitalization and patient improvement needs to be demonstrated

f. Home health care services
- Limited to services that are performed that replace other required treatments
- Coverage for services not covered by the medical plan require case manager approval

g. Plan design approaches to promote the use of certain facilities
- Varying benefit levels (i.e. PPO)
- Limiting coverage to certain providers (i.e. closed-panel HMO)
- Tiered benefit plans with lower member cost sharing if preferred hospitals are used

4. Covered professional services

a. Coverage is provided by licensed or board certified providers

b. Coverage for surgical professional services performed on an inpatient, outpatient, and office basis
- Certain surgical procedures are required to be performed on an outpatient and office basis
- Lower provider payments for multiple procedures and assistant surgeon charges

c. Covered services
- Office visits
- Hospital visits
- Emergency room visits
- Preventive care
- Obstetrician/gynecologist services

d. Hospital visits are usually limited to one visit per day and are included in the surgical fees if the visit is a follow-up to a surgical procedure

e. Physician charges are subject to the same limitations that apply to emergency room facility charges

f. Preventive services have no member cost sharing (ACA)

g. Coverage for physician services for pregnancy is similar to facility charges

h. Additional professional services

- Consultations may require a referral
- Outpatient psychiatric treatment
- Outpatient alcohol and drug treatment
- Physical therapy
- Immunizations and injections

i. Plans may require the selection of a primary care physician (i.e. gatekeeper)

- Referral is required to obtain other covered services

j. Plan design approaches to promote the use of certain providers

- Credentialing/Recredentialing of providers ensures that quality and efficiency standards of the providers are satisfied
- Recredentialing requirements may be used to replace or ease gatekeeper referral requirements

5. Other covered services

a. Prescription drug benefits

- Plan includes a deductible/copay per prescription
- Mail order services for maintenance drugs may be required
- Incentives (i.e. lower copays/deductibles) or requirements for generic drugs
- Coverage of oral contraceptives (ACA)

b. Appliances and Durable Medical Equipment

- Coverage is determined based on the cost effectiveness of renting vs. purchasing
- Requires approval of the case manager

c. Ambulance services

- Provides transport to the closest facility

d. Private duty nursing

- Coverage is provided if it replaces more expensive alternatives
- Requires approval of the case manager

e. Wellness benefits

- Programs encourage healthy lifestyles via analysis of the health status and lifestyle of a member

f. Nurse help lines

- Nurse provides triage to the patient via the telephone
- Use of telehealth/telemedicine care via certified nurse practitioners and medical doctors

g. Disease management benefits

- Non-contractual benefits are provided to targeted members with certain chronic conditions
- May result in improved health outcomes and lower health care costs

h. Diagnostic, X-ray and lab

2nd Dimension of a medical plan

Represents the degree to which the insured shares in the cost of medical services via deductibles, copays, or coinsurance.

1. Reasons for member cost sharing

a. Control of utilization

- Advantage is the member is more accountable for the cost of the health care services
- Disadvantage is the resulting lower utilization may cause worsening health status or higher costs in the future due to untreated medical conditions

b. Control of costs

- Advantage is lower premiums
- Disadvantage is employer premiums are fully deductible and medical costs to the employer have limited deductibility

i. Therefore, tax rules promote higher premiums and lower cost sharing

c. Control of risk to the insurer

- With higher member cost sharing, the plan can meet the definition of an insurable risk

2. Provisions for cost sharing
    a. Deductible
        - Amount that is paid by the member before costs are covered by the plan
        - Services may not require a deductible (i.e. preventative care services)
        - May apply to and vary by service (i.e. per admission)
        - Family deductible limits

          The following definitions can be used

            i. Dollar amount that is required to be paid in total by the family before costs are covered by the plan

            ii. Deductible is defined for each individual with a family limit

          Example:

          Total deductible for family = 2 times the individual deductible. Each family member must meet the individual deductible up to the family deductible limit
        - Varying or waiving of the deductible if preferred providers are used
    b. Deductible carryover provision
        - Claims applied to the deductible in the ending quarter of the calendar year are applied towards the deductible in the following period
    c. Coinsurance
        - % of covered services paid by the insurer (i.e. 80%) or the member (i.e. 20%) after the deductible is satisfied
        - Can vary by type of service
        - Member coinsurance may be reduced if preferred providers are used
    d. Copay
        - A fixed dollar amount paid at the time of the service
        - Can vary by service
        - Copays can vary by provider in a tiered network arrangement
            i. Higher copays for inefficient/expensive providers
    e. UCR (usual, customary, and reasonable) charge levels
        - Reflect the minimum of the provider's usual charges, customary charges in a geographical region for similar procedures, and a reasonable charge level based on the services provided

- Member may be responsible for the difference between the billed charge and the payment based on UCR
- Approach is not applied for plans that provide service benefits (i.e. plans that restrict provider selection and have no additional costs to the member after the member cost sharing (i.e. HMOs))
- Acceptance by the providers of UCR reimbursement as payment is generally required for participation in a network
- Many insurers use metrics by Fair Health to calculate UCR

f. Annual/Lifetime maximums
   - Used when medical necessity is difficult to define or the course of treatment is not clear (i.e. chiropractic care, mental and nervous disorders)
   - Used for catastrophic or experimental services
   - Provision is prohibited for essential benefits (ACA)
     i. It still can be used by grandfathered plans

g. Daily limit maximums
   - Limits on the benefit payable per day
   - Used to control costs, promote employee awareness of the cost of services, and to encourage efficient utilization of services
   - Used with SNF, home health care, and private duty nursing benefits

h. Number of day limits
   - Limit on the number of days that services are covered
   - Controls utilization of services
   - Used with SNF, home health care, and private duty nursing benefits

i. Combination of provisions
   - Base plan provides for first dollar coverage for hospital coverage and may include limits (i.e. item g and h)
   - Supplementary major medical plan provides coverage for other services subject to a corridor deductible and coinsurance
   - Comprehensive plan covers all services subject to a deductible and coinsurance

j. Reference Based Priced (RBP) plan
   - Plan that uses a benchmark (i.e. Fair Health, 150% of Medicare fee schedule) as the plan payment for a specific service
   - Plans are subject to maximum out of pocket costs (ACA)

k. Individual and small group plans are assigned to a metal level based on net cost to the plan (i.e. Net Cost/Allowed Cost)

3rd Dimension of a medical plan

Represents the extent of the provider network and the degree to which the provider participates in the cost of the medical plan which results in lower plan costs and utilization of services. Forms of provider cost sharing include the following provider reimbursement methods.

1. Discounts from billed charges
    a. Lowers plan costs but does not lower utilization
    b. Providers may increase billed charges to offset the discounts
    c. Provider may increase utilization by changing the coding of procedures or by performing more services
2. Fee schedules or fee maximums
    a. Lowers plan costs but does not lower utilization
    b. Providers are unable to increase billed charges
    c. Provider may increase utilization by changing the coding of procedures or by performing more services
3. Per diem contracts
    a. Negotiated reimbursement amount per day of hospital stay
    b. Varies by level of care
    c. Hospital assumes the risk of the intensity of services that are provided
    d. Lowers plan costs but does not lower utilization
        – Provides no incentives to utilize outpatient care or to lower lengths of stay
    e. Contracts may contain outlier provisions
        – Hospital reimbursement changes to a % of billed charges for charges > than a threshold or it applies to total charges once the threshold is exceeded
4. DRG (Diagnosis related groups)
    a. Inpatient reimbursement is based on the diagnosis
    b. Adjustments may be made for longer or shorter lengths of stay relative to the average for the diagnosis
    c. Hospital at risk for length of stay and ancillary services provided during the admission

   d. Controls utilization during the hospital admission but has minimal impact on the number of admissions

   e. Reimbursement is very sensitive to coding methodology

   DRG is a billing code for inpatient services.

5. APC (Ambulatory payment classifications)

   a. Reimbursement mechanism for outpatient charges

   b. Similar to DRG, an APC is based on services which are similar in clinical intensity, resource utilization, and cost

6. Case rate/Global payments

   a. Single reimbursement for all services that are associated with a given condition (i.e. maternity, transplant)

7. Bonus pools

   a. Provider receives additional reimbursement if utilization is below a target level or if other quality of care criteria is satisfied

   b. Generally funded via a withhold (i.e. an amount withheld from the provider payment)

   c. Can effectively control utilization if it can be implemented

      – Bonus needs to represent a significant part of provider's income

      – Provider reluctance if the bonus is significant and the risk of adverse experience is considered beyond their control

      – Ethical considerations (i.e. provides a financial incentive to not perform services)

   d. Approach provides an acceptable risk level for the insurer as the withhold amount is applied to any excess utilization

8. Capitation

   a. Provider receives a fixed payment per enrollee per month to perform services under the contract

   b. The risk is passed on to the provider

      – Risk to the insurer that remains is provider insolvency risk and the risk of the inability of the provider to deliver services

   c. Can lower costs and utilization as the provider's income will increase if utilization can be controlled

   d. Ethical considerations (i.e. provides incentives to not perform services)

9. Global capitation

   a. Provider group is capitated

   b. The risk is passed on to the provider group
   c. Providers may be required to obtain an HMO license for this arrangement
10. Specialty capitation
   a. Physician specialty receives a fixed payment for all of the medical expenses for the treatment of a condition or for all services provided
   b. Arrangement is included in disease management programs
11. Integrated delivery system
   a. Insurer owns or employs the providers of care (i.e. staff model HMO, physician/hospital owned managed care plans)
12. Narrow provider networks
   a. Consist of low cost providers or providers that have agreed to favorable contract terms in order to be included in the narrow provider network Dimension of a medical plan
13. Premium vs. Actuarial value
   a. Plans with similar actuarial value (i.e. metal level) can have different premiums
      – A plan with a narrow network that provides more limited provider selection and benefits can have the same actuarial value and a lower premium compared to a plan that provides greater provider selection and benefits

Other medical plan provisions

These are in addition to the dimensions that define a medical plan and include the following provisions.

1. Overall exclusions of charges or services
   a. Services that are considered not medically necessary
      – Certain services may be allowable (i.e. preventive care)
   b. Services that are considered to be experimental
      – Treatment effectiveness has not been clinically established
      – Treatment may be provided by other funding sources
   c. Cosmetic surgery services
      – Certain services may be allowable (i.e. reconstructive surgery)
   d. Other specified services (i.e. hearing, vision)
      – Medical necessity is difficult to determine

e. Transplants
   - May include an inside limit (i.e. for ACA grandfathered plans)
   - Costs associated with acquiring an organ may be excluded
   - Transplants may be required to be performed in a Center of Excellence

f. Services for which payment is not required (i.e. free care via governmental programs)

g. Services required due to an act of war

h. Services provided due to a work-related injury
   - Coverage is provided by the workers compensation program

i. Services provided by or charges from a provider related to a patient

2. Mandated benefits
   a. Vary by state
   b. Issues for contracts that are written in one state that cover individuals in another state
      - States that do not apply extraterritorial laws dictate that the insurance laws of the state that the employer resides in apply to its employees that reside in other states
      - States that do apply extraterritorial laws dictate that the insurance laws of the state that the employee resides in apply
   c. ERISA preemption from state laws regarding mandated benefits for self-funded plans

3. Coordination of benefits
   a. Provision applies when a service is covered by more than one plan
   b. Primary carrier provides coverage as if it was the sole insurer
   c. Secondary carrier provides coverage for additional benefits based on a total charges or on a total benefits coordination approach
      - Coordination based upon total charges
        i. Payment = Min (Benefits Paid if Primary, Total Charges Incurred - Benefits paid by Primary Carrier)
      - Coordination based upon total benefits
        i. Payment = Max (Benefits Paid if Primary - Benefits paid by Primary Carrier, 0)
   d. Designation of the primary carrier is based on a hierarchy created by the NAIC
      - Plan that does not contain a coordination of benefit clause

- Carrier that covers the individual as an employee
- Plan for which the covered employee has the earlier birthday (if both carriers cover the individual as a dependent)
- Plan that has coverage in effect for a longer time period (if both carriers cover the individual as an employee or if both employees that cover the dependent have the same birthday)

e. Medicare coordination of benefit provisions

- For employers with 20+ employees, the plan covering the individuals as employees (or as dependents of active employees) is primary
- Plan covering the individuals as retirees (or as dependents of retirees) is secondary if Medicare is primary

4. Subrogation (third party liability)
   a. Carrier that provides services to an injured party recovers expenses from the injuring party (i.e. expenses due to a car accident)
   b. Carrier is given the right to act on behalf of the covered individual
5. Cobra Continuation
   a. Employers with 20+ employees are required to offer coverage after the employee's termination date (i.e. due to the loss of eligibility of the employee or dependent resulting from termination of employment)
   b. Coverage period is 18 to 36 months
      - Period depends on the nature of the termination
   c. Premium can be up to 102% of the unsubsidized benefit cost

Special situations for defining a medical benefit plan

The dimensions that define a medical plan are broad in scope. The following medical benefit plans are defined based on features across all the dimensions of a medical plan.

1. Managed care plans
   a. HMO
      - Significant provider cost-sharing and low member copays
      - All care is required to be provided by a network provider (except for emergency services)
      - Restrictive provider networks that must abide by the plan's utilization protocols and provide care at reduced fee levels

- Goal of provider cost sharing is to lower utilization

b. Exclusive Provider Organization (EPO)

- All care is required to be provided by a network provider (except for emergency services)
- Regulated as an insurance contract or self-funded plan
  i. HMO may be subject to different regulations (i.e. via the DOI or other entity)

c. Point of Service (POS)

- Member selects a PCP and has low copays (i.e. similar to HMOs)
- Out-of-network care is available with additional member cost sharing

d. Preferred Provider Organizations (PPO)

- Use of participating providers is encouraged via lower member coinsurance or lower deductible
- Significant provider cost sharing but lower compared to HMOs
- Goal of provider cost sharing is to lower overall costs

2. Flexible Spending Accounts (FSA)

a. Employee pre-tax contributions are made to an account from which reimbursement for eligible expenses are made

b. Insured cost sharing is the amount of the pre-tax contribution

c. There is no provider cost sharing

d. Maximum contribution of $2,750 (2020)

- Amount is indexed annually for inflation

Topic 2

Manual Rates

(25% – 40%)

Learning Objectives

The candidate will understand how to calculate and recommend a manual rate for each of the contracts described in Learning Objective 1.

Learning Outcomes

The candidate will be able to:

a) Identify and evaluate sources of data needed for pricing, including the quality, appropriateness, and limitations of each data source

b) Develop a medical cost trend experience analysis

c) Calculate and recommend assumptions

d) Calculate and recommend a manual rate (includes developing a base rate and applying a rating manual)

e) Identify critical metrics to evaluate actual vs. expected results

f) Apply actuarial best practices in evaluating and projecting claim data

GROUP INSURANCE, SKWIRE, DANIEL D. 8TH EDITION, 2021 – CH. 20 GROUP LIFE INSURANCE BENEFITS

Components of gross premium

Gross premium is called the contribution rate or premium equivalent for self-insured plans.

1. Expected claim costs
2. Administrative expenses
3. Commissions and other sales expenses
4. Premium taxes
5. Other taxes
6. Risk and profit charges (contribution to surplus)
7. Credits for investment earnings

Administrative expenses

1. Covers cost of product design, development, sales, underwriting, and administration
2. Includes allocation of overhead expenses (i.e. salaries, maintenance of IT infrastructure that supports many products)
    a. May not be included for new products and market segments (i.e. pricing on the margin)
        – Only expenses that are directly related to the new product are included
        – The overhead is applied to other products
3. Amortization of plan design and development expenses
4. Network access charge to cover expenses for developing and administering provider networks and for utilization management expenses
    a. Insurers and administrators can pay a separate company that creates the network (i.e. rental network)
        – The costs are recovered via a loading to the premium

5. Expenses vary between the 1st year and renewal years
    a. Administrative and marketing expenses are higher in the 1st year
    b. 1st year expenses may be amortized

Considerations in developing the administrative expense component

1. How are expenses allocated to the product?

    Allocation methods are the following

    a. Activity based allocation
        – Expenses are allocated to a function or product

        For example,

        Mail room expenses are charged back to a function or product.

        – Set at the beginning of the year with updates for actual expenses
    b. Functional expense allocation
        – Expenses are allocated by line of business based on time involved in performing tasks
        – Time involved is recorded while activities are performed or is estimated retrospectively
    c. Multiple allocation methods (use a and b)

        For example,

        Activity based allocation for mail, customer service, and claims administration and functional expense allocation for all other areas.

2. How should expenses be allocated to groups?
    a. Bases for expenses

        Include the following

        – Percent of premium
        – Percent of claims
        – Per Policy
        – Per employee (certificate) or per member
        – Per claim administered
    b. Considerations
        – Expenses are split between 1st vs. renewal years

- Expenses charged to specific groups vs. allocated over all groups
- Charge expenses to groups and products based on activities that result in the expense
    i. Basis that is based on various factors as expenses may vary (i.e. by members, number of groups, number or amount of claims)

    For example,

    HDHPs have few claims per participant and higher levels of customer service per claim.
    Retiree health plans have higher claims per participant, higher levels of customer service per claim, and greater levels of claim adjudication in determining COB with Medicare.

3. What are the expenses that the competition is reflecting in their pricing?
    a. Adjustments may be required (i.e. competition charging for additional services, subsidizing blocks)
    b. Bases used should reflect the drivers of expense

    For example,

    Policy issue fee is a fixed amount as the group receives one policy.
    Expenses related to enrollment can be based on group size or premium.

Sources of data for administrative expenses

1. Internal sources
    a. Reflect amounts required to cover company operating costs
    b. Functional cost studies are used that measure the resources (i.e. IT systems) required to perform functions based on group size, type of coverage, or line of business
    c. The studies are based on the accounting system data that tracks expenses by expense type and by area or function
    d. The accounting system automatically allocates expenses to product lines Costs may need to be allocated by other approaches (i.e. reports on time spent in performing an activity)
2. External
    a. Reflect market considerations
    b. Sources
        - Industry association studies
        - Annual statement expense data

- Competitive feedback (rate filings, competitive quotes)
- Special surveys

c. Care in its interpretation is necessary (i.e. inaccurate data, accounting differences)

Commissions and other sales expenses

1. Products are marketed by agents, brokers, and salaried representatives
   a. Agents and brokers are paid a commission
   b. Commission overrides are paid to general agents who manage a number of agents
2. Commissions should reflect the services that are performed (i.e. volume and complexity of services) and other considerations (i.e. competitive considerations)
3. Supplemental compensation is paid to brokers or salaried representatives based on criteria (i.e. persistency, volume, type of groups sold)
4. Advertising or promotional expenses
   a. These may be direct expenses or expenses allocated to the product (i.e. advertising to promote the brand name)
5. Bases for expenses
   a. Percent of premium
      - Percentage declines with group size
   b. Sliding premium scale
   c. Flat dollar amount per member
6. 1^{st} vs. renewal year commissions
   a. Commissions do not vary between 1^{st} and renewal years for large groups
   b. Commissions are higher for the 1^{st} year for small groups
      - This practice is prohibited for medical products (ACA)
7. Commissions for retiree products are regulated (i.e. MA, Part D)
   a. Prevents agents and brokers from maximizing commissions by inappropriately moving beneficiaries to a new plan every year (churning)

Premium taxes

1. Paid by insurers and vary by state ($1\% - 3\%$ of premiums)
2. Tax is based on the state where the group contract was issued
3. Pricing approaches for large groups that operate in more than one state

   a. Premium tax of the state of the headquarters for the large group
   b. Weighted average premium tax of the states where the insurer operates
4. Pricing approach for small groups
   a. Premium tax of the state that the group operates in applies as premiums are developed based on risk pools of all members living in a state (ACA for non-grandfathered plans)
5. Premium tax is not applied to self-insured plans and government plans (i.e. MA plans)

Other taxes and assessments

1. Federal and state income taxes that are applied to insurers
2. Allocation methods
   a. Percentage of premium across all products
   b. Pre-tax operating results by product
3. Federal assessment on health insurance coverage (ACA 2014)
   a. Includes self-insured plans
   b. Amount is assessed across all carriers
   c. Annual fee was appealed in 2021
4. States with special assessments may subsidize the premiums in individual markets via other markets
5. Insurer assessments impact insurers and health care provider assessments impact insurers and self-insured groups (i.e. via provider contract negotiations between the insurer and the provider)

Risk and profit charges

1. Based on risk and competitive considerations
   a. Risk factors include degree of risk, capital allocated, and return on expected capital
   b. Degree of risk is dependent on group size, benefits, funding vehicle, and resources required for administration
2. Risks for small groups include underestimating claims due to statistical fluctuation, mis-estimation, and rating and benefit regulations

   These include

   a. Benefit mandates
   b. Restrictions on underwriting flexibility

   c. Restrictions on rate increases

3. Risks for large groups include underestimating claims and financial risk
   a. Risk that a group that is in a deficit position will terminate before deficits can be recovered by the insurer (i.e. formula balance is negative)
   b. Risks for self-insured groups
      – Employer is unable to cover claims and may seek assistance from the insurer or TPA that performs the ASO services
      – Administrative fees (ASO fees) are insufficient
      – Incorrect processing of claims
   c. Risk for jumbo accounts
      – Insurer will be unable to reduce expenses or bring on new business in time to cover its fixed expenses if a revenue shortfall occurs when a very large group terminates
4. Risk and profit margins can be based on a return-on-surplus approach

   Required return on surplus = Target risk and Profit Margin / Required Surplus
   a. The target profit margins can be adjusted to account for other risks

      For example,

      Risk that initial expenses may not be recovered on a new product.
5. Risk and profit charges may be reduced to reflect any profit margins included in the expense charges, investment income credits, and pooling charges
6. Necessary return on capital can be based Risk based capital (RBC) requirements
   a. Actual returns are compared to target returns based on RBC requirements
7. Consider the degree of underwriting discretion that is provided when rates are developed when setting the assumption for profit and risk margin

Investment earnings

1. Earned on reserves and cash flows
2. Generally the crediting rate is based on the insurer's portfolio rate of return, investment strategy, and the type and duration of the liabilities
3. Methods to reflect the assumption in pricing
   a. Explicit rate component
   b. Offset to expenses
   c. Offset to the provision for risk or profit

4. The component may not be explicitly reflected in pricing and the target LRs or profit margins are adjusted to reflect it
5. The administrative fee is increased for arrangements in which the employer holds the reserves to account for the fact that there are no investment earnings on the reserves to lower the insurer's administrative cost

Manual premium rates

1. Rating factors to account for the characteristics of the group
    a. Age and gender
        – Reflect differences in morbidity
        – Gender can be removed from the final rate after including the factor to develop the rate
        – Age curve that applies in the state is used
        – Age adjustment factor restricted to a 3:1 ratio (ACA 2014)
        – Rating based on gender is prohibited (ACA 2014)
    b. Health status
        – Reflect substandard health conditions (for small groups)
        – Prohibited (ACA 2014) but still applies for grandfathered small group plans
        – Generally does not apply to large groups where the rates are based on claims experience
        – Use of risk adjustment techniques in setting rates
            i. Risk score is based on various factors (i.e. age, gender, diagnosis or episodes, and drug use)
    c. Rating tiers
        – Common rating tiers to express the dependent rates
            i. One Tier: Composite
            ii. Two Tier: Employee only, Family
            iii. Three Tier: Employee only, Employee + 1 Dependent, Family
            iv. Four Tier: Employee only, Employee +1 Dependent, Employee with Children, Family
            v. Five Tier: Employee only, Couple, Employee with Child, Employee with Children, Family

- Dependent coverage to age 26 (ACA)
  Impacts of the provision include the following
  i. Increases the number of dependents on family contracts
  ii. Increases the number of employees electing family contracts
  iii. Increases the costs for family coverage
  iv. Results in a change to a more complicated tier structure

d. Geographic factors
- Reflect variation in claim costs by area
- May reflect regulatory factors and risks that vary by state
- Rating by geographical area is to be determined by each state (ACA 2014)

e. Industry
- Reflect variation in claim costs by industry
- Ensure the risk has not been reflected in other adjustment factors (i.e. age, area, health status)
- Prohibited (ACA 2014)

f. Group size
- Reflect variation in claim costs by group size
- Expenses and risk charges vary by group size
- Prohibited (ACA 2014)

g. Length of premium period
- Factor to reflect coverages where rates are established for more than one year (i.e. types of group life insurance, supplemental benefits)
- Higher risk charges are required due to the greater risk when premiums rates are set for a longer time period as the premiums are based on projections over a longer time period
- Investment income and persistency assumptions are more critical when setting a rate for more than 1 year

h. Plan design factors and network factors can be used in rating (ACA)

2. Marketing, competitive, and regulatory issues
   a. Consistency in manual rates for different group sizes and products
   b. Variation in premium rates from their actuarial value for marketing, competitive, or selection reasons

c. States rating restrictions

- States limit the variation in rates due to differences in rating characteristics
- States limit the amount of the annual rate increase

d. Federal rating restrictions

- Require stricter state and federal oversight in the individual and small group markets (ACA)

3. Group specific adjustments

a. Adjustments to the manual rates for new business discounts and for experience that is credible

b. New business discounts

- Used to incent the group to change carriers

  Prohibited for non-grandfathered individual and small group plans (ACA)

- Should be based on an analysis of durational claim experience
- Renewal rates will be higher as a result of the discount (i.e. renewal rate increase = amount of discount + trend)
- 1st year discount should account for feasible renewal rate levels and state rating restrictions

c. Expected claims may be based on prior experience and a manual rate (i.e. credibility is assigned to the experience)

d. Jumbo groups

The following considerations also apply to self-insured plans although the size of the adjustments are limited (i.e. due to the lower cost of administrative services and the availability of stop loss coverage).

- Considerations in setting rates
  i. Marketing advantage due to the prestige of group
  ii. Improves the carrier's negotiation leverage with providers
  iii. Economies of scale in enrollment, billing, and administration
  iv. Group may require special services (i.e. reporting, claims administration)

4. Monitoring of actual experience

a. Use of systems and procedures to monitor actual vs. expected experience

b. Pricing assumptions are adjusted if actual experience varies from the expected experience (which is based on the original pricing assumptions)

