<table>
<thead>
<tr>
<th>Important Exam Information:</th>
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</thead>
<tbody>
<tr>
<td><strong>Exam Registration</strong></td>
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<tr>
<td>Candidates may register online or with an application.</td>
</tr>
<tr>
<td><strong>Order Study Notes</strong></td>
</tr>
<tr>
<td>Study notes are part of the required syllabus and are not available electronically but may be purchased through the online store.</td>
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<tr>
<td><strong>Introductory Study Note</strong></td>
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<tr>
<td>The Introductory Study Note has a complete listing of all study notes as well as errata and other important information.</td>
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<tr>
<td><strong>Case Study</strong></td>
</tr>
<tr>
<td>The case study will be provided with the examination. Candidates will not be allowed to bring their copy of the case study into the examination room.</td>
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<tr>
<td><strong>Past Exams</strong></td>
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<tr>
<td>Past Exams from 2000-present are available on SOA website.</td>
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<tr>
<td><strong>Updates</strong></td>
</tr>
<tr>
<td>Candidates should be sure to check the Updates page on the exam home page periodically for additional corrections or notices.</td>
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</table>
# Topic: Provider Reimbursement

## Learning Objectives

The candidate will understand how to evaluate the effectiveness of different provider reimbursement methods from both a cost and quality viewpoint.

## Learning Outcomes

The Candidate will be able to:

a) Calculate provider payments under various reimbursement methods  
b) Evaluate standard contracting methods from a cost-effective & quality perspective  
c) Understand contracts between providers and insurers  
d) Understand accountable care organizations and medical patient home models and their impact on quality, utilization and costs

## Resources

  o Ch. 4: The Provider Network  
  o Ch. 22.6-22.7  
- GHA-102-13: Evaluating Bundled Payment Contracting  
- GHA-110-15: Commonwealth Fund Paper – The Final Rule for the Medicare Shared Savings Program  
- GHA-119-18: Physician Remuneration Options, pp. 3-11  
- GHA-120-18: Avoiding Unintended Consequences in ACO Payment Model  
- GHA-123-19: Physician Cost Profiling – Reliability and Risk of Misclassification  
- GHA-124-19: Medicare Shared Savings Program in the Quality Payment Program  
- *Provider Payment Arrangements, Provider Risk, and Their Relationship with Cost of Healthcare* (excluding Appendices)
# 2. Topic: Healthcare Interventions

## Learning Objectives

The candidate will understand how to evaluate healthcare intervention programs.

## Learning Outcomes

The Candidate will be able to:

a) Describe, compare and evaluate programs  
b) Estimate savings, utilization rate changes and return on investment  
c) Apply the actuarially adjusted historical control methodology  
d) Calculate chronic and non-chronic trends in a manner that reflects patient risk

## Resources

  - Ch. 3: Care Management Programs and Interventions  
  - Ch. 4: Actuarial Issues in Care Management Evaluations (background only)  
  - Ch. 8: Understanding the Economics of Care Management Programs  
  - Ch. 9: Applying the Economic Model: The Example of Opportunity Analysis  
  - Ch. 10: Measuring Care Management Savings Outcomes (background only)  
  - Ch. 11: The Use of Propensity Scoring in Program Evaluation  
  - Ch. 12: An Actuarial Method for Evaluating Care Management Outcomes (excluding Appendix 12.2 & 12.3)  
  - Ch. 13: Understanding Patient Risk and Its Impact on Chronic and Non-Chronic Member Trends  
- GHA-113-16: Population Health Alliance and HERO– Program Management and Evaluation Guide, Ch. 1 and 2
### 3. Topic: Reserving

#### Learning Objectives

The candidate will understand and apply valuation principles for insurance contracts.

#### Learning Outcomes

The Candidate will be able to:

- **a)** Describe the types of claim reserves (e.g., due and unpaid, ICOS, IBNR, LAE, PVANYD)
- **b)** Explain the limitations and biases of the traditional valuation methods
- **c)** Calculate appropriate claim reserves given data
- **d)** Reflect environmental factors in reserve calculations (trend, seasonality, claims processing changes, etc.)
- **e)** Evaluate data resources and appropriateness for calculating reserves
- **f)** Describe, calculate and evaluate non-claim reserves and explain when each is required
- **g)** Apply applicable standards of practice related to reserving

#### Resources

  - Ch. 37: Claim Reserves for Short-Term Benefits
  - Ch. 38: Claim Reserves for Long-Term Benefits
  - Ch. 6: Reserves and Liabilities
- GHA-103-16: Health Reserves
- GHA-114-19: Canadian Standards of Practice, sections 2120 and 2300 (excluding 2320.33 to 2320.37, 2340, 2350.19 to 2350.31, 2350.41 to 2350.45, 2360 and 2370), Feb 2018
- *ASOP 5: Incurred Health and Disability Claims* (excluding Appendices)
- *ASOP 23: Data Quality* (excluding Appendices)
- *ASOP 41: Actuarial Communications* (excluding Appendices)
- *ASOP 42: Health and Disability Actuarial Assess and Liabilities Other than Liabilities for Incurred Claims* (excluding Appendices)
- *CIA Educational Note - Valuation of Group Life and Health Policy Liabilities*, sections 6-14
- *AAA Premium Deficiency Reserves Discussion Reports*
- *Read. Think. Write.*, Health Section News, Oct 2004
- *Financial Reporting Implications Under the Affordable Care Act, Section IV*
- *Claim Reserve Model–How Actuaries Rely Upon the Claim Data They Receive, Long Term Care News*, Sep 2008
## Learning Objectives

The candidate will understand how to apply principles of pricing, risk assessment and funding to an underwriting situation.

## Learning Outcomes

The Candidate will be able to:

1. Understand the risks and opportunities associated with a given coverage, eligibility requirement or funding mechanism
2. Understand, evaluate and apply various risk adjustment mechanisms
3. Recommend strategies for minimizing or properly pricing for risks
4. Describe and apply approaches to claim credibility and pooling
5. Apply applicable Actuarial Standards of Practice

## Resources

  - Ch. 21: Estimating Medical Claim Costs (pp. 356-361)
  - Ch. 27: Experience Rating and Funding Methods
  - Ch. 30: Group Insurance Underwriting
  - Ch. 31: Managing Selection in a Multiple-Choice Environment
  - Ch. 33: Health Risk Adjustment (pp. 571-577)

  - Ch. 4: Managing Antiselection (pp. 109-148)

- GHA-118-17: Issues to Consider in Self-Funding Long-Term Disability Insurance
- GHA-121-18: Assuris for Group Insurance in Canada
- **Level Funding: An Alternative to ACA for Small Groups, Health Watch**, May 2016
- **Issues in Applying Credibility to Group Long-Term Disability Insurance** (pp. 5-15)
- **A Practical Approach to Assigning Credibility for Group Medical Insurance Pricing**
- **The Role of the Actuary in Self-Insurance**, May 2018, sections 4, 5 & Appendices (excluding 4.4, 4.6.1, 4.6.2 & 4.6.3); please note this link is to a zip file and candidates are responsible for all items contained within it.