

**Group and Health Design and Pricing
Fall 2011**

Important Exam Information:

Exam Date and Time	A read-through time will be given prior to the start of the exam—15 minutes in the morning session and 15 minutes in the afternoon session.
Exam Registration	Candidates may register online or with an application.
Order Study Notes	Study notes are part of the required syllabus and are not available electronically but may be purchased through the online store.
Introductory Study Note	The Introductory Study Note has a complete listing of all study notes as well as errata and other important information.
Case Study - 09.02.11	This case study will also be provided with the examination. Candidates will not be allowed to bring their copy of the case study into the examination room.
Past Exams	Past Exams from 2000-present are available on SOA web site.
Updates	Candidates should be sure to check the Updates page on the exam home page periodically for additional corrections or notices.

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Fall 2011**

Exam	Group/Health Design & Pricing
Learning Objectives	
<p>1. Understand and evaluate the effectiveness of the various types of Single Employer group coverage typically offered under:</p> <ul style="list-style-type: none"> - Group health plan, including Consumer driven plans, etc. - Prescription Drug - Group dental plan - STD or LTD plan (incl. mention of coverage within other plans) - Group life plan - Other miscellaneous benefits - Multi-employer groups (Taft-Hartley, etc) 	
Learning Outcomes	
<p>The candidate will be able to:</p> <ul style="list-style-type: none"> a) Describe the various coverages, including typical benefit provisions, eligibility requirements, cost-sharing provisions, limits and funding mechanisms b) Identify the potential gaps in needed or desired coverages c) Identify which participants would find each coverage a valued benefit and why d) Assess the advantages and disadvantages to an sponsor of offering a given coverage/benefit e) Evaluate potential financial, legal and moral risks associated with each coverage f) Recommend policy provisions to minimize the risks identified above g) Assess the advantages and disadvantages to an participant of offering a given coverage/benefit h) Evaluates several coverage scenarios as alternatives to a given scenario 	
Syllabus Resources	
<ul style="list-style-type: none"> • <i>Canadian Handbook of Flexible Benefits</i>, Third Edition, McKay, 2007 <ul style="list-style-type: none"> o Ch. 6, Death and Disability • <i>Group Insurance</i>, Bluhm, Fifth Edition, 2007 <ul style="list-style-type: none"> o Ch. 8, Dental Benefits o Ch. 11, Miscellaneous Benefits • <i>The Handbook of Employee Benefits</i>, Rosenbloom, Seventh Edition, 2011 <ul style="list-style-type: none"> o Ch. 10, Pharmacy Benefits o Ch. 8, Understanding Managed Behavioral Health Care Benefits <p>Candidates may also use the 2005 Sixth Edition. The following references apply:</p> <ul style="list-style-type: none"> o Ch. 6, Understanding Managed Care Health Plans: The Managed Care Spectrum o Ch. 11, Alternative Prescription Drug Plans and Their Impact on Employers o Ch. 12, Understanding Managed Behavioral Health Care Benefits <ul style="list-style-type: none"> • <i>Managing and Evaluating Healthcare Interventional Programs</i>. Duncan, 2008 <ul style="list-style-type: none"> o Ch. 13, Introduction to Wellness and Integrated Programs • GH-D100-07 Specialty Accident and Health Products • GH-D101-07 Group Disability Insurance (sections 1, 8, 10, 11) • GH-D102-07 Group Life Insurance Introduction, Sections 1–3 • GH-D103-07 Pricing Long Term Care, pp. 1-9 • GH-D106-07 <i>EBRI Fundamentals of Employee Benefit Programs</i> <ul style="list-style-type: none"> o Ch. 14, Multi-Employer Plans • GH-D127-10 <i>The Handbook of Employee Benefits</i>, Sixth Edition <ul style="list-style-type: none"> o Ch. 6, Understanding Managed Care Health Plans: The Managed Care Spectrum • Value-Based Insurance Design, The American Academy of Actuaries http://www.actuary.org/pdf/health/vbid_june09.pdf • Effective Contracting with Pharmacy Benefit Managers, HealthWatch, February 2010 http://www.soa.org/library/newsletters/health-watch-newsletter/2010/february/hsn-2010-iss63.pdf 	

**Group and Health Design and Pricing
Fall 2011**

Exam	Group/Health Design & Pricing
Learning Objectives	
2. Understand and evaluate the effectiveness of the various types of Individual and multi-life coverage typically offered under: <ul style="list-style-type: none">- Individual health plan- LTC (including group and individual)- Individual DI plan- Medicare Supplement	
Learning Outcomes	
The candidate will be able to: <ul style="list-style-type: none">a) Describe the various coverages, including typical qualifications for benefits, coverage eligibility, cost-sharing provisions, limits, and funding mechanismsb) Identify the potential gaps in needed or desired coveragesc) Identifies which insureds would find each coverage a valued benefit and whyd) Evaluate potential financial, legal and moral risks associated with each coveragee) Recommend policy provisions to minimize the risks identified abovef) Evaluates several coverage scenarios as alternatives to a given scenario	
Syllabus Resources	
<ul style="list-style-type: none">• <i>Individual Health Insurance</i>, Bluhm, 2007 - (including any CD ROM references)<ul style="list-style-type: none">○ Ch. 2, The Products• GH-D105-07 Direct Marketing• GH-D104-07 Pricing Medicare Supplement Benefits, Sections I & II• Critical Issues in Health Reform: Market Reform Principles http://www.actuary.org/pdf/health/market_reform_may09.pdf• Health Reform in the 21st Century, proposals to Reform the Health System, AAA http://www.actuary.org/pdf/health/health_systems_june09.pdf	

**Group and Health Design and Pricing
Fall 2011**

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Learning Objectives	
<p>3. Evaluates employer strategies for designing and funding benefit plans for:</p> <ul style="list-style-type: none"> i) Active employees ii) Dependents iii) Pre-65 retirees iv) Post-65 retirees v) Disabled (short and long-term) 	
Learning Outcomes	
<p>The candidate will be able to:</p> <ul style="list-style-type: none"> a) Describe typical strategies used by employers to fund and design benefit plans, including contribution strategies b) Evaluate potential financial, legal, moral risks associated with each strategy c) Recommend benefit, eligibility, or funding provisions to minimize each of the risks identified above d) Evaluate integration strategies with government programs (e.g., Parts A,B, and D of Medicare) e) Describe opportunities to encourage employees to be more health and cost conscious and to return to work early 	
Syllabus Resources	
<ul style="list-style-type: none"> • <i>Canadian Handbook of Flexible Benefits</i>, McKay, Third Edition , 2007 <ul style="list-style-type: none"> ○ Ch. 2, Elements of Flex Plans ○ Ch. 3, Starting and Maintaining a Flexible Program ○ Ch. 7, Flexible Expense Accounts – Health Spending, Personal and Perquisite ○ Ch. 23, Case Studies • <i>Fundamentals of Retiree Group Benefits</i>, Yamamoto, 2006 <ul style="list-style-type: none"> ○ Ch. 1, Introduction ○ Ch. 2, Erosion of Retiree Health Benefits ○ Ch. 4, Retiree Benefit Design ○ Ch. 5, Funding • <i>The Handbook of Employee Benefits</i>, Rosenbloom, Seventh Edition, 2011 <ul style="list-style-type: none"> ○ Ch. 1, The Environment of Employee Benefit Plans ○ Ch. 2, Functional Approach to Designing & Evaluating Employee Benefits ○ Ch.3, Risk Concepts and Employee Benefit Planning ○ Ch.4, Health Plan Evolution <p>Candidates may also use the 2005 Sixth Edition. The following references apply:</p> <ul style="list-style-type: none"> ○ Ch. 1, The Environment of Employee Benefit Plans ○ Ch. 2, Functional Approach to Designing & Evaluating Employee Benefits ○ Ch.3, Risk Concepts and Employee Benefit Planning ○ Ch.7, Understanding Managed Care Health Plans: Understanding Costs and Evaluating Plans 	

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Fall 2011**

Exam	Group/Health Design & Pricing
Learning Objectives	
4. Evaluate the various types of coverages typically offered under a government health plan (e.g., Medicare, Medicaid, Canadian health plan, Social Security Disability Income, states' Temporary Disability Income programs, Workers Compensation, etc.)	
Learning Outcomes	
The candidate will be able to: <ul style="list-style-type: none">a) Describe the various coverages, including typical qualifications for benefits, coverage eligibility, cost-sharing provisions, limits, taxation and funding mechanismsb) Identify the potential gaps in needed or desired coveragesc) Assess the social good and risks associated with each coverage	
Syllabus Resources	
<ul style="list-style-type: none">• <i>Canadian Handbook of Flexible Benefits</i>, McKay, Third Edition, 2007<ul style="list-style-type: none">○ Ch. 4, Plan Structure and Eligibility○ Ch. 5, Health Care (section 5.12, Provincial Health Insurance Plans only)• <i>Fundamentals of Retiree Group Benefits</i>, Yamamoto, 2006<ul style="list-style-type: none">○ Ch. 3, Medicare• <i>Group Insurance</i>, Bluhm, Fifth Edition, 2007<ul style="list-style-type: none">○ Ch. 7, Health Benefits in Canada○ Ch. 12, Government Old-Age, Survivors, and Disability Plans in the U.S.○ Ch. 13, Government Health Care Plans in the U.S. (Medicaid Section only pp. 237-243)• <i>The Handbook of Employee Benefits</i>, Rosenbloom, Seventh Edition, 2011<ul style="list-style-type: none">○ Ch. 20, Social Security and Medicare Focus on Disability, Survivorship, and Medicare Provisions, pp. 517-524 <p>Candidates may also use the 2005 Sixth Edition. The following reference applies:</p> <ul style="list-style-type: none">○ Ch. 22, Social Security and Medicare (pp. 529-549 only) <ul style="list-style-type: none">• Update on Massachusetts Health Care Financing review, Health Watch, January 2008 http://www.soa.org/library/newsletters/health-watch-newsletter/2008/january/hsn-2008-iss57.pdf	

**Group and Health Design and Pricing
Fall 2011**

Exam	Group/Health Design & Pricing
Learning Objectives	
5. Apply U.S. and Canadian nation-specific regulation to product design and pricing	
Learning Outcomes	
<p>The candidate will be able to:</p> <ol style="list-style-type: none"> a) Determine if given policy provision is compliant with the regulation b) Describe key provisions of major legislation c) Evaluate the potential financial and moral risk associated with the legislation d) Determine the potential impact on the cost of complying with the regulation 	
Syllabus Resources	
<ul style="list-style-type: none"> • <i>Group Insurance, Bluhm, Fifth Edition, 2007</i> <ul style="list-style-type: none"> ○ Ch. 21, Small Group Rate Filings and Certifications • <i>Individual Health Insurance, Bluhm, 2007</i> (including any CD ROM references) <ul style="list-style-type: none"> ○ Ch. 1, Introduction ○ Ch. 3, Policy Forms ○ Ch. 9, Regulation • GH-D101-07 Group Disability Insurance (section 5 only) • GH-D104-07 Pricing Medicare Supplement Benefits, Section III • GH-D118-11 National Healthcare Reform: Strategic Considerations for Large Employers • GH-D119-11 What Kind of Risk Adjustment Systems Are Necessary for Health Insurance Exchanges?, Milliman • GH-D120-11 Operation of a Health Exchange Within the PPACA: What Needs to be in Place, How Does it operate, and How Might States Approach Governance?, Milliman • GH-D121-11 Health Insurers Need to Quickly Assess Operational Costs for Medical Services Under Health Care Reform, Milliman • GH-D122-11 Should Your State Establish a Health Insurance Exchange?, Milliman • GH-D123-11 Health Insurance Exchanges: Implementation and Data Considerations for States and Existing Models for Comparison, Robert Wood Johnson Foundation • GH-D124-11 What Do We Really Know About Consumer-Driven Health Plans? EBRI Issue Brief 345 • GH-D125-11: Kaiser Summary of New Health Reform Law • Actuarial Equivalence, the American Academy of Actuaries http://www.actuary.org/pdf/health/equivalence_may09.pdf • Administrative Expenses, The American Academy of Actuaries http://www.actuary.org/pdf/health/admin_expenses_sept09.pdf • Gender Considerations in a Voluntary Individual Insurance Market, American Academy of Actuaries http://www.actuary.org/pdf/health/gender_may09.pdf • Health Cooperatives, The American Academy of Actuaries http://www.actuary.org/pdf/health/coops_oct09.pdf • Individual Mandate, The American Academy of Actuaries http://www.actuary.org/pdf/health/individual_mandate_may09.pdf • Market Reform, The American Academy of Actuaries http://www.actuary.org/pdf/health/market_reform_may09.pdf • Merging the Small Group and Individual Markets, The American Academy of Actuaries http://www.actuary.org/pdf/health/merging_markets_sept09.pdf • Minimum Loss Ratios, The American Academy of Actuaries http://www.actuary.org/pdf/health/loss_july09.pdf • Premium Setting in the Individual Market, The American Academy of Actuaries http://www.actuary.org/pdf/health/premiums_mar10.pdf • Risk Pooling, The American Academy of Actuaries http://www.actuary.org/pdf/health/pool_july09.pdf • State Level Impacts, The American Academy of Actuaries http://www.actuary.org/pdf/health/state_level_nov09.pdf • Transitioning to New Market Rules, The American Academy of Actuaries http://www.actuary.org/pdf/health/transition_aug09.pdf • The Age Wave, The Ocean State and Long-Term Care, Long-Term Care News, December 2009 http://www.soa.org/library/newsletters/long-term-care/2009/december/ltc-2009-iss24.pdf 	

**Group and Health Design and Pricing
Fall 2011**

Exam	Group/Health Design & Pricing
Learning Objectives	
6. Apply U.S. and Canadian taxation rules to employer and individual health plan	
Learning Outcomes	
The candidate will be able to: <ul style="list-style-type: none"> a) Recommend strategy for legally minimizing taxes for both employer and employee b) Describe key provisions of major regulation c) Assess pricing impact of taxation on employer, employee or policy holder 	
Syllabus Resources	
<ul style="list-style-type: none"> • <i>Canadian Handbook of Flexible Benefits</i>, McKay, Third Edition, 2007 <ul style="list-style-type: none"> ○ Ch. 12, Taxation of Flexible Benefits ○ Ch. 13, Discrimination Issues • <i>The Handbook of Employee Benefits</i>, Rosenbloom, Seventh Edition, 2011 <ul style="list-style-type: none"> ○ Ch. 25, Cafeteria Plan Design and Administration <p>Candidates may also use the 2005 Sixth Edition. The following reference applies:</p> <ul style="list-style-type: none"> ○ Ch. 37, Cafeteria Plan Design and Administration • GH-D102-07 Group Life Insurance Section 4 • GH-D103-07 Pricing Long-Term Care, page 5 	

Exam	Group/Health Design & Pricing
Learning Objectives	
7. Understand predictive modeling techniques	
Learning Outcomes	
The candidate will be able to: <ul style="list-style-type: none"> a) Describe how predictive modeling techniques are used in underwriting, pricing and claims management b) Describe typical predictive modeling techniques c) Evaluate the advantages and disadvantages of each technique 	
Syllabus Resources	
<ul style="list-style-type: none"> • Predictive Modeling: Considerations for Care Management Applications, <i>Health Section News</i>, 4/2004 http://www.soa.org/library/newsletters/health-section-news/2004/april/HSN0404.pdf • Assessing Predictive Modeling Tools for Pricing and Underwriting, <i>Health Watch</i>, Jan, 2006 http://www.soa.org/library/newsletters/health-watch-newsletter/2006/january/hsn0601.pdf • Predictive Modeling Applications, <i>RSA 31</i>, #2, session 3PD http://www.soa.org/library/proceedings/record-of-the-society-of-actuaries/2000-09/2005/june/rsa05v31n23pd.pdf • GH-D110-07 An Introduction to Predictive Modeling for Disease Risk Stratification • GH-D111-07 Predictive Modeling and Finding and Intervening with the High-Cost Healthcare Consumer, Haelan Group Whitepaper • GH-D126-11: <i>Introduction to Credibility Theory</i>, Herzog, 2010, Ch. 11 	

**Group and Health Design and Pricing
Fall 2011**

Exam	Group/Health Design & Pricing
Learning Objectives	
8. Evaluate the process and be able to develop a medical manual rate for government programs, ASO and insured business	
Learning Outcomes	
<p>The candidate will be able to:</p> <ol style="list-style-type: none"> a) Identify and evaluate sources of data needed for pricing and underwriting including the quality, appropriateness, and limitations of each data source b) Identify and evaluate the rating parameters needed to evaluate and manage a book-of-business c) Develop experience analysis (claims cost and expenses) <ol style="list-style-type: none"> i) Construct the appropriate models ii) Develop the appropriate assumption, including trend, anti-selection, etc. d) Recommend appropriate actions following the study including <ol style="list-style-type: none"> i) Areas for further study ii) Changes in coverage, eligibility requirements or funding strategy e) Evaluate the impact of changing economic conditions on pricing f) Evaluate provider compensation model, including capitation, and its impact on projected claim costs. g) Integrate utilization management data into pricing h) Modify manual rates to reflect specific plan values including benefits for which little or no data is available i) Construct a rating model to be used for rating individual customers or plan designs 	
Syllabus Resources	
<ul style="list-style-type: none"> • <i>Group Insurance</i>, Bluhm, Fifth Edition, 2007 <ul style="list-style-type: none"> o Ch. 29, Estimating Claim Costs for Life Benefits o Ch. 30, Estimating Medical Claim Costs o Ch. 31, Estimating Claim Costs for Disability Benefits o Ch. 32, Estimating Dental Claim Costs o Ch. 34, Calculating Gross Premiums o Ch. 36, Medical Claim Cost Trend Analysis o Ch. 38, Applied Statistics o Ch. 39, Data Sources and Structures o Ch.46, Management of Provider Networks • <i>Individual Health Insurance</i>, Bluhm, 2007 (including any CD ROM references) <ul style="list-style-type: none"> o Ch. 5, Setting Premium Rates o Ch. 8, Forecasting and Modeling • <i>Managing and Evaluating Healthcare Intervention Programs</i>, Duncan, 2008 <ul style="list-style-type: none"> o Ch. 9, Understanding Patient Risk and Its Impact on Chronic and Non-Chronic Member Trends o Ch. 11, Comparative Analysis of Chronic and non-Chronic Insured Commercial Member Cost Trends o Ch. 15, The Relationship Between Risk Factors and Health Care Claims Costs in Program Design and Evaluation 	
<ul style="list-style-type: none"> • GH-D101-07 Group Disability Insurance (sections 2, 4 and 7 only) • GH-D102-07 Group Life Insurance, Section 6 • GH-D103-07 Pricing Long-Term Care, pp.9-34 • GH-D104-07 Pricing Medicare Supplement Benefits, Sections IV & V • GH-D107-07 Actuarial Aspects of Taft-Hartley Welfare Plans, Reserves, Claim Forecasts, and Setting Contribution Levels • GH-D112-07 Monitoring and Projecting Pricing Trends in a Managed Care Environment • GH-D113-07 Group Long Term Disability – Improving Actuarial Analysis through Understanding the Benefits Process • GH-D114-07 Actuarial Issues in Fee-For-Service/Prepaid Medical Group, Sutton & Sorbo • Timing’s Everything: The Impact of Benefit Rush, Health Watch, May 2008 http://www.soa.org/library/newsletters/health-watch-newsletter/2008/may/hsn-2008-iss58.pdf • Design and Pricing of Tiered Network Health Plans, HealthWatch, May 2009 http://www.soa.org/library/newsletters/health-watch-newsletter/2009/may/hsn-2009-iss61.pdf • New Member Impact on Medicaid Managed Care Costs, HealthWatch, February 2010 http://www.soa.org/library/newsletters/health-watch-newsletter/2010/february/hsn-2010-iss63.pdf • Emerging Data on Consumer Driven Healthcare AAA Task Force Report on CDH (May 2009) http://www.actuary.org/pdf/health/cdhp_may09.pdf 	

**Group and Health Design and Pricing
Fall 2011**

- 2008 Annual Meeting, Session 129, Are Your Health Trends Fact or Fiction?
<http://www.soa.org/professional-development/archive/detail.aspx>
- 2009 Health Meeting, Session 57, The Actuary and Provider Contracting: Mastering the Process
<http://www.soa.org/professional-development/archive/detail.aspx>
- 2009 Health Meeting, Session 37, Disability Experience in the US and Canada
<http://www.soa.org/files/pdf/2009-toronto-health-garand-37.pdf>
- 2009 Health Meeting, Session 64, LTC and Disability Insurance: Learning from the Past
<http://www.soa.org/files/pdf/2009-toronto-health-helwig-64.pdf>
- A Suggestion to Do a Post Mortem Analysis of the Work Done by LTC Pricing Actuaries Over the Last Quarter Century, Long Term Care News, December 2009
<http://www.soa.org/library/newsletters/long-term-care/2009/december/ltc-2009-iss24.pdf>

**Group and Health Design and Pricing
Fall 2011**

Exam	Group/Health Design & Pricing
Learning Objectives	
9. Applies principles of pricing, benefit design and funding to an underwriting situation	
Learning Outcomes	
<p>The candidate will be able to:</p> <ul style="list-style-type: none"> a) Understand the risks and opportunities associated with a given coverage, eligibility requirement or funding mechanism b) Evaluates the criteria for classifying risks c) Recommends strategies for minimizing or properly pricing for risks d) Describe basic approaches to credibility theory e) Apply the credibility theory to a given underwriting situation 	
Syllabus Resources	
<ul style="list-style-type: none"> • Canadian Handbook of Flexible Benefits, McKay, Third Edition, 2007 <ul style="list-style-type: none"> ○ Ch. 14, Pricing ○ Ch. 16, Adverse Selection • <i>Group Insurance</i>, Bluhm, Fifth Edition, 2007 <ul style="list-style-type: none"> ○ Ch. 24, Underwriting Large Groups ○ Ch. 25, Underwriting Small Groups ○ Ch. 35, Experience Rating and Funding Methods ○ Ch. 42, Underwriting Gain and Loss Cycles ○ Ch. 44, Product Development • <i>Individual Health Insurance</i>, Bluhm, 2007 (including any CD ROM references) <ul style="list-style-type: none"> ○ Ch. 4, Managing Anti-Selection ○ Ch. 11, Managing the Business, pp. 311-319 and 322-334 • GH-D101-07 Group Disability Insurance (section 6 only) • GH-D102-07 Group Life Insurance Sections 5 & 7 • GH-D104-07 Pricing Medicare Supplement Benefits, Section VI • GH-D109-07 Medical Underwriting: Approaches and Regulatory Restrictions (Shreve-Milliman Research Report) • GH-D117-07– Variation by Duration in Small Group Medical Insurance Claims • GH-D126-11: <i>Introduction to Credibility Theory</i>, Herzog, 2010, Chapters 1, 2 and 12 • Modeling Anti-Selective Lapse and Optimal Pricing in Individual and Small Group Health Insurance, HealthWatch, February 2010 http://www.soa.org/library/newsletters/health-watch-newsletter/2010/february/hsn-2010-iss63.pdf • Generic Dispensing Rates: Silver Bullet No More?, HealthWatch, May 2010 http://www.soa.org/library/newsletters/health-watch-newsletter/2010/may/hsn-2010-iss64.pdf • ASOP 25, Credibility Procedures Applicable to Accident and Health, Group Term Life and Property/Casualty Coverages http://www.actuarialstandardsboard.org/pdf/asops/asop025_051.pdf 	