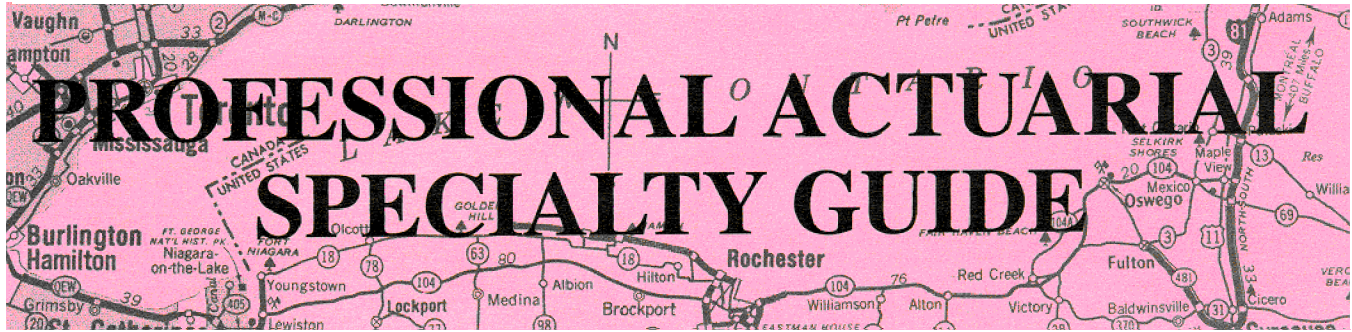


SOCIETY OF ACTUARIES



INDIVIDUAL MEDICAL EXPENSE INSURANCE

Overview

The types of medical expense policies through which individual benefits are delivered include comprehensive medical expense plans, major medical plans, limited hospital and surgical plans, hospital indemnity plans, Medicare supplement-plans, long-term-care plans, and specified disease plans, for example, plans covering expenses incurred in the treatment of cancer.

Certain of these policy types are generally sold on an attained-age basis with frequent premium revisions. Premium rate revision is a controversial subject that frequently finds regulators and carriers at odds: Involved in the question of premium rate revision are conceptual issues (such as the protection of policyholders in closed blocks that need large premium increases to render the policy forms self-supporting) and practical, technical issues (such as selection of the proper assumptions and formulas for projections).

Attained-age pricing typically is applied to such insurance vehicles as comprehensive medical and major medical expense plans, which require morbidity information on a basis so current that published data usually are outdated. For these kinds of plans, active life reserves—except for unearned premium reserves—usually are not required.

All types of individual medical policies require that an actuary perform claim reserve and liability calculations and establish benefit costs for pricing of new products and revision of existing premium scales. Actuaries operating in this market must be familiar with the regulatory aspects of rate filings, including anticipated loss ratio regulations and special guidelines for Medicare supplement policies and forecasting.

The Actuary's Role

Actuaries perform technical tasks for individual medical expense policies. These tasks include setting of active life reserves on both a statutory and GAAP basis, establishment of claim liabilities and claim reserves, pricing of new products, and revision of existing premium scales.

In addition to purely actuarial tasks, actuaries frequently assist in plan design and development of underwriting rules and marketing approaches for individual medical insurance. Since the early 1980s, attempts have been made to recast the active life reserve basis and premium renewal requirements to accomplish various objectives. Controversy surrounding reserve and pricing standards springs from the nature of the benefits: Individual medical benefit costs tend to change over time to a greater degree than life insurance benefits, and premium rates are subject to change over the life of the policy. Therefore, rules governing reserve and pricing and renewal premium revision are promulgated not as a final form but rather as exposure drafts. These exposure drafts are subject to critique and recommendations for change. It is important that actuaries ensure that the final regulatory rules are as reasonable as possible and that they follow sound actuarial theory.

Some of the sources listed include the exposure drafts, analysis and comments on the drafts. These include the *Health Section Newsletter* and Society of Actuaries panel discussions or open forums on individual medical insurance.

Because of the actuary's preeminent role in pricing, reserving and complying with regulations for health insurance, these areas are emphasized in this specialty guide. The Society of Actuaries study material—including the textbook *Individual Health Insurance*—covers such traditional topics as design, marketing, and the theory of pricing and reserving.

The Professional Actuarial Specialty Guides Committee of the Society of Actuaries provides these Specialty Guides for continuing education purposes. They are intended to provide the user with a summary of representative sources of current general knowledge. Neither the Society of Actuaries nor the Committee intends or represents these Specialty Guides to be complete or their use necessarily required or sufficient for meeting continuing education requirements or any other professional competency standards of any organization.

Marketing

Actuaries determine and demonstrate the effect of marketing cost, including commissions on premium rates and the incidence of profits. In addition, knowledge of marketing techniques is important to plan design decisions.

Abkemeier, Noel J., "Selling Individual Health Insurance." Chapter 8 in *Individual Health Insurance*, Francis T. O'Grady, ed. Itasca, Ill.: Society of Actuaries, 1988, p. 159.

This chapter discusses marketing channels, compensation and special sale requirements such as outlines of coverage for certain products.

Level: Basic

Pages: 9

Pricing

The sources cited below address theory and techniques of pricing as well as the morbidity for certain benefits. Because morbidity changes rapidly for individual medical expense benefits, actuaries are unlikely to find current published data. It is therefore important that actuaries learn to obtain morbidity assumptions by projecting prior data and by adjusting data from one benefit type to a differing but similar benefit type. Articles on specific benefits help to illustrate these techniques.

Bluhm, William F. and Spencer Koppel, "Individual Health Insurance Premiums." Chapter 4 in *Individual Health Insurance*, Francis T. O'Grady, ed. Itasca, Ill.: Society of Actuaries, 1988, p. 57.

This chapter covers gross premium structures and premium elements such as morbidity, expenses, persistency, interest, and contingency margins. It addresses experience data and the monitoring of data through management information systems. The chapter also covers regulatory restrictions on premium rates and renewal rate calculations.

Level: Intermediate

Pages: 35

Bluhm, William F., "Cumulative Antiselection Theory," *Transactions of the Society of Actuaries* Vol. XXXIV (1982): p. 215.

A model is proposed as a potential explanation for the steady deterioration in loss ratios often observed on blocks of individual health insurance policies.

The model is compared with a classical model for its effect on a hypothetical block of policies with respect to cash and incurred loss ratios and reserves. The model is then applied to a case study; a rate increase is derived; and various projections are made.

The proposed model lends itself to calculation of premiums, calculation of durational antiselection reserves needed to stabilize loss ratios, and analysis of the effects of additional lapses resulting from premium increases.

Level: Intermediate

Pages: 17

Chuang, Rose C., and Gordon R. Trapnell, "Costs of Insuring Preventive Care." *Inquiry* No. 27 (Fall 1990): p. 273.

This article presents cost estimates (for 1990) to health insurance programs for preventive clinical care. Descriptions of services, costs and utilization are provided.

Level: Basic

Pages: 8

McCall, Nelda, Thomas Rice, James Boismen, and Richard West, "Private Health Insurance and Medical Care Utilization: Evidence from the Medicare Population." *Inquiry* No. 27 (Fall 1991): p. 276.

This paper examines the factors that affect utilization of medical care among the elderly, focusing on the influence of supplemental health insurance policies on various types of medical care services.

Perceived health status is defined as a significant factor in determining magnitude of utilization and cost, particularly among those whose perceived health status is poor and who have supplemental insurance with first-dollar coverage.

Level: Intermediate

Pages: 12

Silverman, Herbert A., "Use of Medicare—Covered Home Health Agency Services, 1988," *Health Care Financing Review* Vol. 12, No. 2 (Winter 1990): p. 113.

This article presents data on the use of and program payments for Medicare-covered home health agencies from 1974–1978. Geographic and age variations are presented. Also addressed are changes in legislation and regulations that have affected the use of home health agency services.

Level: Basic

Pages: 14

Waldo, Daniel R., "Outpatient Prescription Drug Spending by the Medicare Population," *Health Care Financing Review* Vol. 9, No. 1 (Fall 1987): p. 83.

The author presents cost and utilization data for selected calendar years and projected through 1991. Pricing of a prescription drug benefit with deductible and coinsurance is illustrated with the use of a gamma function for the probability function.

Level: Basic

Pages: 7

Latta, Viola B., and Roger E. Keene, "Use and Cost of Skilled Nursing Facility Services Under Medicare, 1987," *Health Care Financing Review* Vol. 11, No. 1 (Fall 1989): p. 105.

1987 Medicare program data are presented, together with data for 1971–87. Included are covered admissions, days of care, covered charges, and program payments. Age and geographic variations are exhibited. A brief history of the skilled nursing facility is provided.

Level: Basic

Pages: 12

Cleeton, David L., Valy T. Geopfrich, and Burton A. Weisbrod, "What Does the Consumer Price Index for Prescription Drugs Really Measure?" *Health Care Financing Review* Vol. 13, No. 3 (Spring 1992): p. 45.

This article describes the methodology for constructing the Consumer Price Index for prescription drugs and notes weaknesses in that Index—particularly its inability to deal with products, substitutes for drugs and a changing distribution system.

Level: Basic

Pages: 7

"Health Care Trend Update." *Record of the Society of Actuaries* Vol. 17, No. 3A (1991): p. 1061; Vol. 16, No. 4A (1990): p. 2289; Vol. 16, No. 1 (1990): p. 233; Vol. 15, No. 3A (1989): p. 1193; Vol. 15, No. 1 (1989): p. 313.

Recent data are presented, causes are identified and methodology is reviewed. Factors unique to group rather than to individual business are identified.

Level: Intermediate

Pages: 141

Handley, Thomas L., "Developing Premium Rates for a Preferred Provider Organization," *Transactions of the Society of Actuaries* Vol. XXXVII (1985): p. 187.

This paper describes the development of premium rates for a preferred provider organization. It identifies the factors to be considered and the elements that should be part of a rate model. The mathematical formula for the rates used in the model is also identified. The paper addresses key underwriting considerations and renewal issues.

Level: Intermediate

Pages: 14

Health Care Financing Administration, HCFA Division of Information Analysis, *Medicare Statistics*. Baltimore, Md.: U.S. Department of Health and Human Services.

This booklet, published annually, gives information on Medicare/Medicaid populations, providers and suppliers, expenditures, utilization and administration.

Level: Intermediate

Policy Forms

The actuary generally is most concerned that the benefit descriptions, exclusions and limitations, insuring clause, and definitions reflect the risk for which the premium rates were set. In addition, the actuary should be concerned that the rate structure, level premium or attained-age premium is properly stated and that the company's right to revise the premium rate scale is maintained.

Habeck, Charles, and Mark E. Litow, "Individual Health Insurance Policy Forms." Chapter 10 in *Individual Health Insurance*, Francis T. O'Grady, ed. Itasca, Ill.: Society of Actuaries, 1988, p. 187.

This article addresses basic policy requirements and optional provisions. It suggests the objectives and criteria for a satisfactory policy form.

Level: Basic

Pages: 13

The materials described below cover the theory and practice of setting active life reserves and claim liabilities and show actual recommendations for certain benefits currently approved by the NAIC.

Koppel, Spencer, Francis T. O'Grady, Gary N. See, and Robert B. Shapland. "Reserve Principles for Individual Health Insurance," *Transactions of the Society of Actuaries* Vol. XXXVII (1985): p. 201.

This paper expresses the views of the authors on the principles that should guide the establishment of policy and claim reserves for individual health insurance. Guiding accounting principles on the matching of revenues with expenditures are first discussed and then corollary policy and claim reserve principles are presented.

A major position of this paper is that the rating principles/practices that control both initial and renewal premium levels are critical in establishing the proper matching of premiums and claims and thus in establishing policy reserves. The paper goes on to discuss the appropriateness of recognizing all the factors that have an impact on lifetime premium and claim levels is establishing policy reserves and not just aging. This includes durational morbidity experience and medical care cost trends.

The paper also takes the position that, in principle, renewal rating practices, as well as policy provisions, should have an impact on claim reserves. Again, this is held to be necessary to properly match premiums and claim payments.

Level: Intermediate Pages: 40

Houghton, Anthony J. and Ronald M. Wolf, "Development of the 1974 Medical Expense Tables," *Transactions of the Society of Actuaries* Vol. XXX (1978): p. 9.

This paper describes the development of the net annual claim costs, net annual premiums and mid-terminal reserve factors for the benefits valued in the 1974 medical expense tables. Hospital, surgical and maternity values were derived from experience reported in the *Transactions of the Society of Actuaries Reports* on individual medical expenses. The cancer, Medicare supplement and major medical values used assumptions by the authors to adjust benefit costs for certain benefit designs. These values are specifically for annual statement valuation and not for pricing of benefits.

Level: Intermediate Pages: 61

"1985 NAIC Cancer Tables." In the *Proceedings of the National Association of Insurance Commissioners*, Vol. 2. Kansas City, Mo.: National Association of Insurance Commissioners, 1985, p. 567.

This report represents the findings of a committee that, acting on behalf of the NAIC, obtained and analyzed cancer experience from several large carriers. The report gives a brief description of the tables, their history, development and usage and includes 30 tables and various benefit adjustment factors.

Level: Intermediate Pages: 23

Litow, Mark E. "A Modified Development Method for Deriving Health Claim Reserves," *Transactions of the Society of Actuaries* Vol. XLI (1989): p. 89.

This paper presents the application of a modified lag method for short-term A&H benefits for the purpose of establishing claim reserves. Included are discussions of many influences that should be considered in establishing such reserves and liabilities. Influences examined range from various types of incurral dating methods and home office practices to external influences such as inflation and government programs. Illustrative methods are also presented to recognize these influences. The paper is useful because it provides both a "how to" presentation for the actuarial student as well as advanced techniques and theories for the experienced actuary.

Level: Intermediate Pages: 38

"Reserve Standards for Health Insurance Contracts," *Health Section News* No. 12 (March 1988): p. 1.

This article comments on a proposal draft, "Reserve Standards for Health Insurance Contracts," and an alternative proposal. The alternative proposal is included in the newsletter.

Level: Intermediate Pages: 5

"Health Insurance Valuation Actuary," *Record of the Society of Actuaries* Vol. 14, No. 3 (1988): p. 1595.

This document records a panel discussion on the concepts of the valuation actuary as applied to health insurance. Addressed are the concepts of cash-flow analysis, scenario testing, and morbidity and disability/economic relationships. Basic principles are reviewed.

Level: Intermediate Pages: 20

"The New A&H Reserving Standards and the 21st Century," *Proceedings*, Conference of Consulting Actuaries in Public Practice (1989): p. 200.

This panel discussion gives an overview of the three types of reserves—claim, premium and contract—required by the new NAIC model. The speakers address some specific questions when these standards differ from the old standards.

Also discussed are new concepts, such as claim expense reserves and the use of voluntary termination rates in the calculation of contract reserves.

Level: Intermediate Pages: 8

Barnhart, E. Paul, "A New Approach to Premium, Policy and Claim Reserves for Health Insurance," *Transactions of the Society of Actuaries* Vol. XXXVII (1985): p. 13.

This paper reexamines the basic concepts and functions of the three kinds of statutory reserves required for individual health insurance. It then proposes certain revisions in the purposes and functions served by these reserves, in relation to health cost inflation, frequent rate increases and risk deterioration in closed, declining blocks of business.

Level: Intermediate Pages: 29

Regulations

These articles cover premium rate filing regulations, with rules for compiling historical experience, projecting future experience and combining this experience for monitoring and filing purposes. Also covered are standards of practice for claim liabilities and assumptions used in rate filing projections.

Cumming, John B., "Regulatory Monitoring of Individual Health Insurance Policy Experience," *Transactions of the Society of Actuaries* Vol. XXXIV (1982): p. 617.

This paper was prepared to facilitate discussions with the New York State Insurance Department on price regulation for individual health insurance. It develops principles and formulas for the application of minimum loss ratio standards. The paper identifies issues raised by past and recent regulatory developments. It offers reasoned positions on the question of pricing regulations and provides a basis for regulatory monitoring of individual health experience.

Level: Intermediate Pages: 18

"Guidelines for Filing of Rates for Individual Health Policies," *Proceedings of the National Association of Insurance*, Vol. II. Kansas City, Mo.: National Association of Insurance Commissioners, 1983, p. 646.

This document contains a general description of the information needed in a rate filing. It also gives the minimum loss ratios that are presumed reasonable for different types of forms by renewability provision and size of premium.

Level: Intermediate Pages: 10

Actuarial Standards Board, "*Incurred Health Claim Liabilities, Actuarial Standard of Practice*" No. 5. Washington, D.C.: American Academy of Actuaries, January 1991.

The standard includes definitions, general guidance about methods and comments about certain factors that should be recognized by actuaries while performing their professional role in calculating claim liabilities for health benefits. Recognition of plan provisions and practices, data requirements, trend, exposure, time value of money, claim settlement expenses, and reasonableness of results are cited in the Actuarial Standard of Practice.

Level: Intermediate Pages: 10

Actuarial Standards Board, "*Regulatory Filings for Rates & Financial Projections for Health Plans Actuarial Standard of Practice*" No. 8. Washington, D.C.: American Academy of Actuaries, January 1989.

The standard includes definitions and background issues and discusses the use of reasonable and appropriate assumptions and procedures. It warns against the use of techniques and assumptions employed or chosen merely to meet a regulatory requirement, without consideration of sound actuarial principles and practices. The standard discusses recognition of benefit plan provisions, consistency of business plan and assumptions and use of prior experience to project future results.

Level: Intermediate Pages: 5

"Individual Rate Filings," *Record of the Society of Actuaries* Vol. 17, No. 4B (1991): p. 2119.

This document records a panel discussion of seven questions being addressed by the Life and Health Actuarial Task Force of the NAIC: renewability, rate increase caps, durational rating, optional prefilling of rates, minimum loss ratios, application of small-group reform to the individual market, and use of only a loss ratio as a determinant of regulatory approval of rate increases.

Level: Intermediate Pages: 18

Underwriting

The term "underwriting" can refer either to the overall use of plan provisions, plan design and general rules about applicant eligibility or to the specific review of an applicant and family members. The chapter from the Society of Actuaries textbook covers both specific and overall underwriting concepts.

Hadley, John W., "Underwriting Individual Health Insurance." Chapter 6 in *Individual Health Insurance*, Francis T. O'Grady, ed. Itasca, Ill.: Society of Actuaries, 1988, p. 117.

This chapter covers basic concepts such as field underwriting, preliminary screening, medical and nonmedical underwriting, and steps available to the underwriter after the initial underwriting review. The chapter discusses the special problems of underwriting medical insurance that covers family members as well as an applicant and duplication-of-coverage issues.

Level: Basic

Pages: 24

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