

**HEALTH PRACTICE NOTE 1995-1**  
**November 1995**

**General Considerations**

**Introduction**

This practice note was prepared by a work group organized by the Committee on State Health of the American Academy of Actuaries. The work group was charged with developing a description of some of the current practices used by health actuaries in the United States. This work group was originally formed in 1993 and issued the first set of Health Practice Notes that year; changes have been made to this set of practice notes to reflect additional information on current practices.

The practice notes represent a description of practices believed by the work group to be commonly employed by health actuaries in the United States in 1995. The purpose of the practice notes is to assist actuaries who are faced with the requirement of preparing a statutory statement of opinion by providing examples of some of the common approaches to this work. However, no representation of completeness is made; other approaches may also be in common use. It should also be recognized that the information contained in the practice notes provides guidance, but is not a definitive statement as to what constitutes generally accepted practice in this area. Moreover, these practice notes are based upon the model Standard Valuation Law of the National Association of Insurance Commissioners (NAIC). To the extent that the laws of a particular state differ from the NAIC model, practices described in these practice notes may not be appropriate for actuarial practice in that state. This practice note has not been promulgated by the Actuarial Standards Board, nor is it binding on any actuary.

The members of the work group responsible for this practice note are Michael S. Abroe, chairperson; Ed Butler; Burton D. Jay; and S. Michael McLaughlin.

Comments are welcome as to the appropriateness of the practice notes, desirability of annual updates, substantive disagreements, etc. Comments should be sent to Peter L. Perkins at his Directory address.

**Q. Why are health practice notes desirable?**

**A.** The NAIC model Standard Valuation Law (SVL) and the NAIC model *Actuarial Opinion and Memorandum Regulation* (hereafter the *Model Regulation*) apply to health insurance business written by life insurance companies and fraternal benefit societies. There are areas where the laws and regulations as applied to health insurance might differ from that for life insurance, and guidance on compliance may be useful to the health practitioner.

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**Q. What types of business (i.e., lines of business) are encompassed by this practice note?**

**A.** All forms of group and individual accident and health policies and contracts are included. This practice note does not apply to postretirement benefit obligations at this time, but may apply to products sold in meeting these obligations.

Examples of products covered include the following:

- |                        |                         |
|------------------------|-------------------------|
| 1. Small Group         | 7. Individual Medical   |
| 2. Blanket Group       | 8. Long-Term Care       |
| 3. True Group          | 9. Accident             |
| 4. Association Medical | 10. Medicare Supplement |
| 5. Group LTD/LTC       | 11. Individual LTD/LTC  |
| 6. Specialty/Niche A&H | 12. Credit A&H          |

**Q. To what types of actuarial opinions do these practice notes pertain?**

**A.** These practice notes pertain to SVL Section 8 (see Actuarial Standard of Practice (ASOP) No. 22, *Statutory Statements of Opinion Based on Asset Adequacy Analysis by Appointed Actuaries for Life or Health Insurers*) and SVL Section 7 (see Actuarial Compliance Guideline (ACG) No. 4, *Statutory Statements of Opinion Not Including an Asset Adequacy Analysis by Appointed Actuaries for Life or Health Insurers*) opinions. Further, they provide guidance in states that have not adopted the SVL.

**Q. Do these practice notes impose new requirements?**

**A.** No. The practice notes merely assist actuaries in preparing a statutory statement of opinion by discussing some of the common approaches to this work. These practice notes do not by themselves impose additional requirements, and actuaries are not required to adhere to the practices described in the practice notes except when those practices are mandated by law, regulation, insurance department requirements, or an ASOP.

**Q. The solvency of health insurance organizations is a concern. Do these practice notes address *surplus adequacy*?**

**A.** Surplus adequacy is not addressed in these practice notes. The SVL addresses reserve adequacy. Health practice notes relate likewise to reserve adequacy. Other requirements (such as risk-based capital requirements and restrictions on payment of stockholder dividends) address surplus adequacy.

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**Q. Are these practice notes based on current practices?**

**A.** Yes, but in some cases new solutions are presented because current practice does not appear to be well established in some areas (e.g., cash flow testing for health insurance).

**Q. What statutory reserves and liabilities related to health insurance fall under a statutory statement of opinion?**

**A.** Major items listed in the SVL are as follows:

1. Exhibits 8, 9, and 11 Reserves and Liabilities; and
2. amounts due to or from reinsurers.

In general, reserve and liability items provided in Exhibits 9, 10, and 11 of the annual statement that arise from health contracts are covered by the actuary's opinion. In addition, other liabilities such as premiums or claims accrual items are covered by the opinion.

**Q. What are the obligation risk and other risks for health business lines?**

**A.** The *Model Regulation* lists six risks that may or may not be applicable to various lines of business: morbidity, mortality, lapse, credit quality, reinvestment, and disintermediation.

The risks vary in significance across health products. Under Section 8 of the SVL, the actuary is expected to consider both asset and liability risks pertinent to each line of health insurance when forming an opinion.

**Q. With regard to adequacy of reserve, when does state of domicile of insurer apply, and when does state of filing of the actuarial opinion apply?**

**A.** Section 2 of the SVL states, “. . . the aggregate reserves would be at least as large as if they had been computed in the manner prescribed by the law of that state or jurisdiction.” Thus, the requirements of both the state of filing and the state of domicile must be satisfied.

*Note:* Adequacy in the aggregate could be satisfied differently in different states. The reserves of a given product or line of business may be deficient in one state but sufficient in another, relative to minimum standards. For other lines of business, the situation could be reversed, yet in both situations adequacy could be satisfied in the aggregate.

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**Q. Is reserve adequacy examined on a going-concern basis or on a closed-block basis?**

**A.** The actuary typically considers the following:

1. The appointed actuary is opining on in-force business as of the valuation date.
2. When performing a cash flow projection or a gross premium valuation, the actuary typically relies on future new business in establishing expense assumptions. The appointed actuary also considers the wearoff of the impact of underwriting selection and the preexisting condition limitations in setting assumptions. However, profits on future new sales are usually not considered.
3. The appointed actuary should carefully review the SVL (and appropriate state versions). The NAIC model law *Minimum Reserve Standards for Individual and Group Health Insurance Contracts* states the following:

Contract Reserves are required . . . for . . . all individual and group contracts with respect to which, due to the gross premium pricing structure at issue, the value of the future benefits at any time exceeds the value of any appropriate future valuation net premiums at that time.

Valuation net premiums used under each contract must have a structure consistent with the gross premium structure at issue of the contract as this relates to advancing age of insured, contract duration and period for which gross premiums have been calculated.

4. Thus, under the SVL, the actuary usually is prudent to be able to justify the position taken.
5. These comments apply to cash flow projections, gross premium valuations, claim liabilities, premium reserves, and contract reserves.
6. Product-specific practice notes provide for further discussion of this issue.

**Q. How are nonguaranteed premiums reflected in health insurance cash flow testing?**

**A.** It is common practice to include anticipated rate increases under realistic scenarios consistent with increasing morbidity. It is also common practice to assume no rate increases (non-inflationary environment) with consistent morbidity assumptions. Either approach is usually appropriate if the assumptions used are reasonable and consistent. Some states have recently implemented limitations or restrictions on the frequency and amount of rate increase a company may take. Such limitations may be tied to prior actual experience. Both individual and group

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products may be affected by these limitations or restrictions. Also, such limitations or restrictions vary considerably by state. (For a definition of *cash flow testing* (CFT), see below.)

**Q. In asset adequacy analyses, what types of assets are to be assigned to health insurance business?**

**A.** Assets purchased or assigned for a health insurance operation would typically reflect the nature of the risk (i.e., as to duration, quality, liquidity, and cash flows). If assets are already segmented for management purposes, this would typically be a good starting point. Because this is a reserve adequacy test, the actuary generally need not use the assets segmented to the line. For the opinion, the actuary generally could use amounts assigned to surplus or trade with other lines, as long as assets are not “double counted.”

**Q. How long are projection periods?**

**A.** It is common practice to include projection periods long enough to insure that the impact of additional projection years is immaterial. The appropriate period will vary by line of business (see product-specific practice notes for further guidance). The actuary may want to examine year-by-year results as well as aggregate present value results in asset adequacy testing.

**Q. Is any special consideration desirable for reinsurance?**

**A.** The actuary typically considers risk transference of the reinsurance treaty and the credit worthiness of the reinsurance company before taking reserve credit for reinsurance ceded. Under the NAIC *Life and Health Reinsurance Agreements Model Regulation*, reserve credit may not be taken for treaties that meet certain conditions, including the establishment of the treaty primarily for surplus relief. The direct writing company has ultimate liability for its policies and contracts in the event of default of the reinsurer; hence, the health appointed actuary may want to evaluate whether the assuming company has the financial strength to meet its obligations.

For certain lines of business, special considerations may apply due to the complexity of benefits (for example, extended wait disability income reinsurance, or specific and aggregate medical stop loss reinsurance).

In the case of reinsurance assumed, limited data may be available, especially for those treaties that are handled on a bulk basis (i.e., without detailed records of policies ceded). The appointed actuary may need to place reliance on other actuaries' work or may need to perform checks of reasonableness in addition to the usual work. The actuary should become familiar with the requirements of ASOP No. 23, *Data Quality*, and ASOP No. 11, *The Treatment of Reinsurance Transactions in Life and Health Insurance Company Financial Statements*, as applied to this area.

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**Standard Valuation Law Section 7 Opinions**

**Q. What is a *Section 7 opinion*?**

**A.** A *Section 7 opinion* is an actuarial opinion as defined under Section 7 of the NAIC model *Actuarial Opinion and Memorandum Regulation* adopted by the NAIC in 1991, and subsequently amended.

A *Section 7 opinion* is a limited opinion in which the actuary opines that reserves meet minimum legal standards. The actuary need not opine on reserve or asset adequacy.

The actuary should carefully review ACG No. 4, *Statutory Statements of Opinion Not Including an Asset Adequacy Analysis by Appointed Actuaries for Life or Health Insurers*.

**Q. SVL Section 7 opinions refer to minimum standards, yet in many states there are no standards for health insurance reserves. What common practices are employed?**

**A.** As of November 1994, at least seventeen states have some form of a minimum reserve standard for individual and/or group health insurance policies. It is common practice for the actuary to review state requirements for minimum standards in each state where a *Section 7 opinion* is to be filed.

Actuarial practices vary in situations where there are no legally required minimum standards. Some actuaries establish no additional (active life) reserves. Alternatively, some actuaries may follow the NAIC model law *Minimum Reserve Standards for Individual and Group Health Insurance Contracts*. This is an area where the actuary typically exercises professional judgment as to reserve adequacy and minimum reserve levels.

**Q. For an SVL Section 7 opinion, does the actuary need to perform a gross premium valuation?**

**A.** In practice, gross premium valuations (GPVs) typically are not performed if the actuary can demonstrate that reserves are adequate or meet minimum standards using other techniques.

The NAIC model law *Minimum Reserve Standards for Individual and Group Health Insurance Contracts* states, “. . . [A] prospective gross premium valuation is the ultimate test of reserve adequacy as of a given valuation date.”

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This model law also states, “When an insurer determines that adequacy of its health insurance reserves requires reserves in excess of the minimum standards specified herein, such increased reserves shall be held and shall be considered the minimum reserves for that insurer.”

When the above applies, most actuaries perform a GPV on a periodic basis, less frequently than annually.

The model law also states, “Such a gross premium valuation is to be performed whenever a significant doubt exists as to reserve adequacy. . . .”

When a gross premium valuation is performed, state rating restrictions should be considered.

Thus, under the SVL, the actuary is generally prudent to be able to justify the position taken.

### Standard Valuation Law Section 8 Opinions

#### **Q. What is a *Section 8 opinion*?**

**A.** A *Section 8 opinion* is an actuarial opinion as defined under Section 8 of the NAIC model *Actuarial Opinion and Memorandum Regulation*. ASOP No. 22 sets forth the standards for a Section 8 opinion.

A Section 8 opinion covers both asset and reserve adequacy. Such an opinion is based on appropriate analysis and supported by adequate documentation. A more complete description of each opinion can be found in the NAIC *Model Regulation*, ASOP No. 22, and ACG No. 4.

#### **Q. Does asset adequacy analysis have any special meaning for health insurance?**

**A.** No. An asset adequacy analysis is similar for all types of business. However, each type of business is exposed to different risks. For any type of business, the analysis tests the adequacy of reserves in light of the supporting assets under various plausible future scenarios. The techniques used for the different forms of health insurance may differ from each other as well as from the techniques used to analyze life insurance and annuities. The actuary generally is expected to be knowledgeable of the applicable risks and techniques commonly used for the types of health contracts and benefits upon which the actuary opines. The most common tool in use for performing asset adequacy analysis is cash flow testing.

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**Q. What is *cash flow testing*?**

**A.** ASOP No. 22 defines *cash flow testing* as the process of projecting and comparing, as of a given valuation date, the timing and amount of asset and obligation cash flows after the valuation date.

If cash flow testing is to be done, the actuary should refer to ASOP No. 22 and use cash flow projection techniques appropriate for the particular health lines being tested.

**Q. What are other common methods of testing asset adequacy?**

**A.** ASOP No. 22 lists other common methods:

1. The actuary may demonstrate that a block of business being tested is highly risk controlled or that the degree of conservatism in the reserve basis is so great that reasonably anticipated deviations from current assumptions are provided for. For example, such methods might be appropriate for a block of accidental death and dismemberment insurance.
2. Gross premium reserve tests may be appropriate when the business is not highly sensitive to economic or interest-rate risks, but is sensitive to obligation risk. If the reserve held is not materially greater than the gross premium reserve, sensitivity testing of variables such as expenses, mortality, morbidity, or lapse may be done to determine whether additional reserves are needed.
3. Loss-ratio methods, development methods, or follow-up studies are described in ASOP No. 5, *Incurred Health Claim Liabilities*.

**Q. ASOP No. 22 defines a *gross premium reserve* as “the actuarial value of an insurance or annuity contract calculated using best-estimate assumptions, of future cash flow disbursements minus future cash flow receipts.” Does this have any special meaning for health insurance products?**

**A.** The credibility of assumptions or volatility may vary significantly for certain health insurance products. This potential for increased volatility suggests that the choice of assumptions for health products typically should be carefully considered. Actuaries may increase the margin in the reserve for products with higher volatility.



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**Q. When CFT is performed on life insurance business, is it also performed for health insurance business in the same company?**

**A.** Different tools may be used for different lines of business. Various tools and their applicability are described in ASOP No. 22 (see above).

**Q. Can life and health business lines be combined for asset adequacy testing purposes?**

**A.** Yes. Different lines of business may be kept separate in the testing process, but offsetting gains and losses between lines of business may be combined.

**Q. How much attention should the health actuary give to the asset (C-1) and interest rate (C-3) risks?**

**A.** Asset risks for health insurance products may be significant, especially for longer-term products such as long-term care (LTC), long-term disability (LTD), etc. There are two types of investment-rate-of-return risks: reinvestment risk and disintermediation risk. Most health insurance products are not highly interest sensitive, because experience is not dependent upon movements in interest rates. However, falling interest rates could pose a threat to reserve adequacy for those health products that have substantial discounted reserves. For some health products, there could be a significant reinvestment risk. For most health insurance lines, the disintermediation risk is nonexistent. Some DI and LTC products may have a cash value type of nonforfeiture benefit and may have disintermediation risk.

**Q. When CFT is performed, are the standard interest rate scenarios used?**

**A.** For most health lines, varying interest rate risk is less critical than other risks. Some actuaries use a limited range of interest rate scenarios combined with sensitivity tests of other variables, such as lapse rates, morbidity, or medical cost inflation.

**Q. Does the impact of possible health care reform need to be taken into account in CFT or asset adequacy analyses?**

**A.** It is common for the primary focus of the appointed actuary to be existing obligations under current regulations. However, it may be prudent to test scenarios reflecting the impact of proposed health care reform laws or regulations where there is a reasonable likelihood of passage. When such tests are conducted, it is common to analyze the impact of such legislation on future premiums, claims, expenses, and persistency, as well as contractual provisions relating to renewability of coverage.

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**Appendix**

**Reference Materials**

**Q. What are the various reference materials available for the actuary to assist him or her in forming an opinion for the various health lines?**

**A.** As a starting point, the actuary may refer to *Professional Actuarial Specialty Guide I-1-92*, prepared by the SOA Committee on Continuing Education. The title of the guide is “U.S. Statutory Financial Reporting and the Valuation Actuary.” Following are possible additions to the references contained in this *Guide*:

1. Actuarial Standards of Practice and Compliance Guidelines

ASOP No. 3	<i>Practices Relating to CCRCs*</i>
ASOP No. 5	<i>Incurred Health Claim Liabilities</i>
ASOP No. 7	<i>Performing Cash Flow Testing for Insurers</i>
ASOP No. 8	<i>Regulatory Filings for Rates and Financial Projections for Health Plans</i>
ASOP No. 10	<i>Methods and Assumptions for Use in Stock Life Insurance Company Financial Statements Prepared in Accordance with GAAP*</i>
ASOP No. 11	<i>The Treatment of Reinsurance Transactions in Life and Health Insurance Company Financial Statements</i>
ASOP No. 14	<i>When to Do Cash Flow Testing for Life and Health Insurance Companies</i>
ASOP No. 16	<i>Actuarial Practices Concerning Health Maintenance Organizations and Other Managed-Care Health Plans*</i>
ASOP No. 18	<i>Long-Term Care Insurance</i>
ASOP No. 21	<i>The Actuary's Responsibility to the Auditor</i>
ASOP No. 22	<i>Statutory Statements of Opinion Based on Asset Adequacy Analysis by Appointed Actuaries for Life or Health Insurers</i>
ASOP No. 23	<i>Data Quality</i>
ACG No. 4	<i>Statutory Statements of Opinion Not Including an Asset Adequacy Analysis by Appointed Actuaries for Life or Health Insurers</i>

\*Contains no direct valuation implications but may assist in forming an opinion.

2. NAIC Model Laws & State Variations: Reinsurance, Long-Term Care, and Medicare Supplement.

3. Other Sources: Documents recording the proceedings of actuarial meetings, such as the record of the SOA, or proceedings of the Conference of Consulting Actuaries; Proceedings of SOA Valuation Actuary Symposiums; SOA Study Notes; State Insurance Department Circular Letters; and publications of the NAIC.

This list is not intended to be exclusive, nor is it intended to prevent the actuary from relying on other appropriate reference materials.