1993 VALUATION ACTUARY
SYMPOSIUM PROCEEDINGS

SESSION 4

The Appointed Actuary and Health Insurance

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THE APPOINTED ACTUARY AND HEALTH INSURANCE

MR. MICHAEL S. ABROE: I'm going to introduce the Basic Issues and Principles Health Practice Note by providing some background information and by discussing parts 1 and 2 of the note. This practice note can be obtained by submitting a request to the Academy as indicated at the end of this chapter.

Introduction

A Health Valuation Note Committee was organized by the State Health Care Issues Committee of the American Academy of Actuaries in June 1993. The committee is chaired by Len Koloms. There are approximately 35 to 40 health actuaries on the committee.

The Basic Issues and Principles Health Practice Note was the first to be developed. The subcommittee charged with developing this note consists of Burton Jay, Mike McLaughlin, and me, as chairperson.

The health practice notes follow a question and answer format, similar to that used for the life practice notes.

When reviewing the practice notes, please note the following:

- The practice notes are intended to assist actuaries preparing a statutory statement of opinion involving health insurance.
- This practice note has not been reviewed or blessed by the Actuarial Standards Board (ASB) or by the American Academy of Actuaries.
- The practice notes are not intended to set practice standards. This was (and still is) the key issue encountered in drafting this note. Throughout the drafting process, we were constantly modifying and redrafting the questions and answers in our attempt to not set standards. This was particularly difficult when we encountered an area where there appeared to be no consensus of common practice. Often, differing practices were identified for differing distribution systems, or between large (or true group), small group, and individual lines for essentially the same coverage. For these types of issues,

we often reverted to reference to key sections of the model laws and cautioned that "the appointed actuary should be able to justify the position taken."

- This note and others were mailed to all symposium registrants on September 3, 1993. They will be discussed at all four health sessions at this meeting. Further discussion will take place at the annual meeting. Any and all questions and comments are welcome. We anticipate finalizing in mid-November 1993, sending the notes to the ASB or AAA for review and releasing by the end of 1993. The game plan is to have a revised set of practice notes by mid-November. There will probably be a short exposure period following.

We anticipate finalizing and releasing all practice notes by year-end.

Purpose and Scope

I'm going to briefly discuss the questions listed in Part 2 of the practice note, "Purpose and Scope."

Questions 1 and 3 -- Please note the practice notes do not apply to health business of entities not classified as a life insurer or fraternal benefit society. Also, this note is intended for Section 7 and 8 opinions.

Question 2 -- All health business is included. Some company obligations such as postretirement obligations that are opined on by a pension actuary or employee benefits actuary are not part of the opinion, and therefore are not covered by the practice note.

Questions 4 and 6 -- The intent of the notes are to present current practices as a guide for the actuary. They are not intended to set standards. The intent is to provide a safe harbor for the appointed actuary.

Let me introduce our panel.

Burton Jay is a Fellow of the SOA and a member of the AAA. He is executive vice president and actuary for the Mutual/United of Omaha Companies. Mutual/United is a multiline insurer writing a broad variety of life and health coverages.

Burton is the financial actuary for the companies. He is responsible for financial and profitability analyses, management reporting, and valuation activities. He is jointly responsible with the investment division for asset/liability management.

Actuarial positions held include Vice President and Board member of both the SOA and AAA. He is currently chairman of the SOA Task Force on Health Financial Issues and a member of the task force on Valuation Methods for Long-Term-Care Insurance.

Michael McLaughlin is a partner of Ernst & Young and director of life and health actuarial services in the western region. Mike is a Fellow of the Institute of Actuaries, an Associate of the SOA, and a Member of the AAA. He serves on several professional committees, including the Academy Committee on Life Insurance Financial Reporting.

Mike has authored several papers and was awarded the Society of Actuaries annual prize for papers in 1987 for his paper, "A Comparison of Alternative GAAP Methodologies for Universal Life."

I'm Mike Abroe, a Fellow of the Society and a Member of the Academy. I'm a principal with Milliman & Robertson, specializing in health insurance and related issues.

I am a member of the Society Task Force on Health Financial Issues, a member of the Society Task Force on Valuation Methods for Long-Term-Care Insurance, and I am the Health Section representative on the Society planning committee for the spring meetings.

All three of us are members of the Academy Health Valuation Note Committee.

This session will present an overview of the appointed actuaries' responsibilities for health insurance. We will concentrate on basic issues and principles. I repeat, we will concentrate on basic issues and principles. This session will concentrate on the key issues affecting the actuary preparing a Section 7 or Section 8 opinion including health insurance.

THE APPOINTED ACTUARY AND HEALTH INSURANCE
BRIEF OVERVIEW OF VALUATION LAW

MR. S. MICHAEL MCLAUGHLIN: All states have some form of the standard valuation law enacted. The newest version of the standard valuation law adopted by the NAIC has been enacted in approximately 17 states. It calls for minimum standards relating specifically to both life and accident and health business. It requires either Section 7 or Section 8 actuarial opinions on certain actuarial reserve and liability items, supported by a memorandum. We will discuss the law and the form of the actuarial opinion in more detail later, but first I will cover minimum reserve standards for accident and health insurance contracts as called for by the standard valuation law.

Minimum reserve standards form much more of a patchwork quilt than is the case with life insurance minimum standards. As shown in this exhibit drawn from the *Valuation Law Manual*, minimum reserves are required at different levels in different states:

Minimum Reserve Standards for A&H Insurance Contracts

Silent	18 States
Gross UPR	15
Old Model	13
New Model	3
Other	3
	52

The most comprehensive set of requirements is laid out in the new model law called "Minimum Reserve Standards for Individual and Group Health Insurance Contracts." Just three states have adopted that new model. The next highest level of minimum reserve standards are laid out in the model law called "Reserve Standards for Individual Health Insurance Policies," which is applicable in approximately thirteen states. Fifteen states require only that reserves exceed in the aggregate the gross pro-rata unearned premium, while eighteen states are completely silent with regard to minimum standards. Three other states have unique requirements of one form

or another. For example, Georgia requires that reserves place a sound value on the company's obligations. There are two other special cases which perhaps could have been considered versions of the old model. The table totals fifty-two because it reflects the fifty states plus the jurisdictions of Washington, D.C. and Puerto Rico.

Even the preceding table is an oversimplification of the minimum reserve standards in effect in different states. Among those states that have adopted the old model minimum standards, six do not refer to the 1985 CIDA table at all, six refer to disability income business only, and some have additional requirements in place.

Here is a summary of the old model minimum standard:

- Active life reserves in addition to claim reserves
- Policy types A, B, C, D
- Interest, mortality, morbidity specified
- Method specified

Active life reserves are required in addition to claim reserves for certain policies. Policies are divided into four types, A through D. Type A policies are guaranteed renewable policies where premium rates are guaranteed, what we would call noncancelable policies. Type B policies are guaranteed renewable for life, but the insurer reserves the right to change the scale of premiums. Type C are those policies that are nonrenewable for stated reasons only, where the stated reasons do not include deterioration of health of the individual policyholder. Type D includes all other policies whether optionally renewable or collectively renewable.

In the old model, the valuation interest, mortality, and morbidity bases are specified. For example, the basis for active life reserves for disability income contracts is the 1964 Commissioners Disability Table for contracts issued up through 1985, while for contracts issued in 1987 and thereafter, the 1985 Commissioners Individual Disability Table is required. There is a transition period where optional use of either table is permitted. The old model law also specifies the valuation method, namely, the net level valuation method modified to a two-year

preliminary-term basis. Mean reserves reduced by net deferred premiums are the required method, although alternative procedures including midterminal reserves plus net or gross pro-rata unearned premium reserves are permitted, as well as certain approximations.

The new model minimum standard law differs in a few important respects:

- Individual and group
- Adequate reserves required (per gross premium valuation)
- Claim, premium, and contract reserves
- More detailed specified assumptions

The new model is the first requirement of reserves for group accident and health business in addition to individual accident and health business. The new model specifies not only minimum standards that may be applicable but also imposes a standard of adequacy. When an insurer determines that reserves in excess of the minimum standards are necessary for adequacy, then such increased reserves shall be held and shall be considered the minimum reserves for that insurer. Thus there is a commingling of the requirement of minimum standard reserves and adequate reserves.

The new model makes a clearer distinction between claim reserves and liabilities, premium reserves or accruals, and contract reserves. Contract reserves are required for both individual and group contracts with which level premiums are used or, in other words, where the premium structure is such that future benefits may exceed future valuation net premiums.

Mortality and morbidity bases are specified in this new model law in more detail than in the old law, and there is more detail also with regard to reserve method. Specifically, the new model requires one-year preliminary-term reserves for long-term-care insurance and specifies treatment of reserves necessary as a result of rate increases or changes in assumptions.

The new model also specifically refers to the use of the gross premium valuation, which is described as the ultimate test of reserve adequacy as of a given valuation date. It is interesting

to note that the law calls the prospective gross premium valuation the ultimate test of reserve adequacy while actuarial professional standards, in essence, demand that cash-flow testing be at least considered in all work performed by the actuary. As we already know, the requirements placed on the shoulder of the valuation actuary are heavy indeed. The model law also calls for the gross premium valuation to be performed whenever there is a significant doubt as to whether reserves are adequate for any major block of insurance contracts or, of course, for the business as a whole.

With that brief overview of valuation law, we will now turn to a discussion of the basic issues and principles health practice note.

Discussion of Basic Issues and Principles Health Practice Note Part 3, General Principles
In this section I will comment on what I believe are the most important aspects of each question.

Question 7: What statutory reserves and liabilities related to health insurance fall under a statutory statement of opinion? -- A statutory statement of opinion covers a number of items: active life reserves, also known as contract reserves; unearned premiums or deferred premiums, depending on the valuation methodology; due or advance premiums; accrued claims liability, namely the liability for payments due on claims incurred but not yet settled, whether reported or not; the present value of amounts not yet due on claims already incurred; certain contingent liabilities; and potentially, experience refunds under group or reinsurance contracts. Practice will sometimes vary between different companies as to which items are covered by the actuary's opinion. To avoid ambiguity, the actuary may be well-advised to clearly specify whose items are covered by his or her opinion.

Question 8: What are the obligation and other risks for health business lines? -- A risk can be defined as a category of change that may cause cash payments under the insurance contract to exceed the insurer's ability to pay. If expressing an opinion on reserve adequacy, the actuary must first consider all risks. Six specified risks are morbidity, mortality, lapse, credit quality,

reinvestment, and disintermediation. In addition, the risk of expense inflation should not be forgotten.

Question 9: When does state of domicile of insurer apply and when does state of filing of the actuarial opinion apply? -- This question is important because, as we have seen, different states have widely varying minimum standards for accident and health reserves. The new standard valuation law makes it clear that aggregate reserves must meet the minimum standards of the state in which the actuary's opinion is being filed. Hence, the state of filing has a higher level of authority than the state of domicile. In practice, of course, reserves may have to meet the highest minimum standard of all states in which a company files any annual statement, because of the practical difficulty of setting different reserves and filing different statements in different states.

Question 10: Should reserve adequacy be examined on a going-concern basis or on a closed-block basis? -- This question highlights the difference between reserve adequacy and merely meeting minimum standards. As we have seen, these two may be quite different. More detail will follow on that later.

The going-concern basis versus closed-block basis has various possible meanings. The most important meaning, I believe, is that it is not proper to use profits or premiums from business not yet written to pay for benefits on contracts now in force. Hence, reserve adequacy must apply to in-force business taken as a whole. All past issue years of business may be combined, but future issue years should not be considered.

On the other hand, it is acceptable to rely on the existence of future new business in certain areas, particularly with regard to the assumed coverage of overhead expenses. If a gross premium valuation were being performed and unit expenses were one of the important assumptions, it would not seem reasonable to assume that those unit expenses would escalate very rapidly as the current block of business dwindles in size due to lapsation. Instead, the entry of new business into the company may be reasonably assumed such that unit expenses, for

example, as to the cost of policy maintenance, may be assumed level or inflating only in line with general prices.

The new model law makes it clear that contract reserves are required for existing contracts in the event that future benefits may possibly exceed the value of future valuation net premiums. The methodology is net level adjusted for two-year or one-year preliminary term as appropriate. Although the minimum standard rules are tightly drawn, it is clear that there is substantial room for the actuary to rely on judgment. We hope the actuary will be able to justify his or her position as being reasonable should questions arise at a later date.

One example of a reasonable assumption relating to the going-concern basis versus closed block basis, deals with the issue of business termination. In my opinion, the actuary should not normally assume that all business will terminate at the next premium due date or the next contract renewal date. If the calculation of reserves depends on that assumption, then I suggest that the adequacy of reserves is likely to be a controversial issue.

Question 11: How should nonguaranteed premiums be reflected in health insurance cash-flow testing? -- I'd like to suggest that the wording of this question be broadened slightly to, "How should nonguaranteed premiums be reflected in health insurance generally: cash-flow testing, gross premium valuations, or other work?" It is appropriate to assume that future rate increases will occur where premiums are not guaranteed. I would suggest that this assumption, like all others, should be reasonable. I have seen cases with blocks of business that were experiencing high loss ratios in which future premium rate increases were assumed to greatly exceed benefit cost trend. In that example, the gross premium valuation showed that reserves were adequate; however, that conclusion could have been regarded as controversial due to the relatively favorable assumption with regard to premium rate increases.

I'd like to defer question 12 to our later discussion on Section 8 opinions.

Question 13: How long should projection periods be? -- We suggest here that projection periods should be long enough that if a slightly longer or shorter projection period was chosen, there would be little or no impact on the conclusions. By way of example, if a five-year projection were changed to a seven-year projection and the results differed substantially, then the five-year projection is too short. Many forms of group business rely on five-year projection periods while other longer-term business may use twenty-year projection periods or longer. A similar test should be applied in either case.

Question 14: Is any special consideration necessary for reinsurance? -- This question should be considered under Part 3 not Part 4. The actuary should probably deal with one or two issues, specifically reinsurance, carefully. First, reserve credit should not be taken for reinsurance treaties that are established primarily for surplus relief. Second, the creditworthiness of the reinsurance company should be considered because the direct-writing company has ultimate liability for its policies and contracts if the reinsurer should default on its obligations.

Reinsurance business may also be relatively complicated, for example, extended wait reinsurance or specific and aggregate medical stop loss reinsurance. In the latter case, the reinsurer may be obligated for claims only where they are incurred and paid within a specified period of time. This has implications for dating of claims as well as the posting of liability for unpaid claims.

In the case of reinsurance assumed, the actuary may have to place reliance on other actuaries' work or may need to perform checks of reasonableness on reserves held or both.

A question not present, although perhaps it should be, deals with margins and claim reserves. Perhaps more statistical studies need to be done in this area. But empirically, for many lines of accident and health insurance business, 10% variations in morbidity from one year to the next are quite plausible, hence 5 or 10 or 20% margins in claim reserves depending on the circumstances may very well be reasonable.

Discussion of Basic Issues and Principles Health Practice Note

Part 4, Section 8 Opinion

Question 18: What is a Section 8 opinion? -- A Section 8 opinion covers both asset and reserve adequacy. A Section 8 opinion is therefore much more encompassing than a Section 7 opinion, which does not deal with asset adequacy and may not even address reserve adequacy, depending on the particular version of the minimum standard law that is in effect.

Question 19: Does asset adequacy analysis have any special meaning for health insurance? -- Asset adequacy analysis is required for larger insurance companies for all types of business. Health and accident business is not excluded. However, each type of business is subject to different risks, hence, the nature of asset adequacy testing may vary so as to appropriately evaluate different risks. The most common tool in use for performing asset adequacy analysis, at least for life insurance business, is cash-flow testing. Other methods may be more appropriate for health business.

Question 20: What is cash-flow testing? -- Cash-flow testing is the process of projecting asset and liability cash flows forward from the valuation date using a variety of different economic scenarios using realistic assumptions that vary appropriately in each economic scenario. If cash-flow testing is being done for health insurance, the assumptions should be reasonable in relation to the type of insurance business, the variation of those assumptions should be consistent with the economic scenario being valued, and the economic scenarios themselves should be relevant to the dominant risks of the type of business.

Question 21: What are the other acceptable methods? -- Cash-flow testing is not the only method that is available for asset adequacy analysis, nor is it necessarily the most appropriate method for all lines of business. Simpler techniques are available. It might be easy for some types of business to demonstrate that risks are relatively limited or very short term in nature, or that the degree of conservatism in the reserve basis is very large.

Gross premium valuations are another acceptable method. As mentioned before, assumptions should be carefully chosen to be neither unduly optimistic nor pessimistic. Nevertheless, there are many situations in which the gross premium valuation should be performed using a range of key assumptions so as to give an indication of the degree of sensitivity of the gross premium reserves to the assumptions used. For example, the best estimate lapse rate may be varied up 5% and down 5% to determine the extent and direction of change in reserves due to the change in assumptions.

Other acceptable methods for claim reserves might include development methods or lag studies and simple experience studies as to mortality, morbidity, expenses, and investment yield, if appropriate. One of my clients has liabilities that are composed entirely of very short-term claim reserves for medical business. Relatively little asset adequacy analysis is necessary in those circumstances. What we have done each year is to look at the quality, yield, liquidity, and amount of the assets supporting the claim reserves.

Question 22: Actuarial Standard of Practice 22 defines a gross premium reserve as "the actuarial value of an insurance or annuity contract using best-estimate assumptions, of future cash-flow disbursements minus future cash-flow receipts." Does this have any special meaning for health insurance products? -- Although I was involved with writing this question, I am not sure if I completely agree with the answer. Here this suggests that for certain health insurance products, assumptions are so volatile that the margin of reserve held over the gross premium reserve may need to be higher than normal. This appears to be imposing a standard on top of a standard, but in an undetermined amount. If the reserve held exceeds the gross premium reserve by $1 and the gross premium reserve is a reasonable one with realistic assumptions, then that reserve is adequate. Clearly, of course, some additional work may be advisable if reserve adequacy is uncertain or marginal, for example, with additional sensitivity testing.

Question 23: When cash-flow testing is performed on life insurance business, is it also performed for health insurance business in the same company? -- There is no requirement that cash-flow testing be performed for health insurance business if it's performed for life insurance

business in the same company. Different tools may be appropriate because different risks exist for different lines of business. Some degree of consistency is necessary, for example, if assets need to be segregated between different lines of business. Certainly the same assets should not be relied on to support two different liabilities.

Question 24: Can life and health business lines be combined for asset adequacy testing purposes? -- Different lines of business may or may not be kept separate in the testing process, depending primarily on the practicality of the approach. For example, different systems may be in place for testing life insurance business versus health insurance business. Offsetting gains and losses between different lines of business may be combined if, in fact, offsetting gains and losses exist.

This answer assumes that there is a degree of similarity between the economic drivers for different lines of business. This might very well be the case, for example, with two lines of business, deferred annuities and immediate annuities, where rising interest rates present the risk of loss for deferred annuities but the likelihood of gain for immediate annuities. With life and health insurance business existing in the same insurer, completely different circumstances may give rise to risk of loss, and those different circumstances or economic forces may be related or unrelated. It could certainly happen, for example, that high interest rates may arise at the same time that unemployment or other economic factors increase disability income morbidity. On the other hand, disability income morbidity need not increase during high interest rate scenarios. Hence, neither a favorable nor unfavorable conclusion may be able to be drawn with regard to whether losses in the deferred annuity line of business should be offset by gains in the disability income line. This area will remain challenging unless all assumption variations needed to generate different scenarios for testing accidental health insurance business can be meaningfully related to the interest rate driver of life insurance cash-flow-testing scenarios.

Question 26: When cash-flow testing is performed, are the standard interest rate scenarios used? -- Here is one suggestion for cash-flow testing for health lines: because a varying interest rate is often a less critical assumption than others, some actuaries use a limited range of interest

rate scenarios, perhaps one increasing scenario, one level scenario, and one decreasing scenario, combined with sensitivity tests or variations of other assumptions such as lapse rates or morbidity. As mentioned before, morbidity assumptions may be subject to wide variations independent of interest rate. Lapse rates, for example, may vary from below 5% to over 50% depending on the line of business, policy year, and other economic circumstances. Cost inflation may vary from a negative trend, as has occurred in the past for certain Medicare supplement benefits, to 50% or more for high deductible medical products.

Question 27: Does the impact of possible health care reform need to be taken into account in cash-flow testing or asset adequacy analyses? -- The actuaries are under no obligation to test future potential changes in law and regulations, but while the valuation actuary may be under no such obligation, perhaps the pricing actuary is. The proximity, however, of health care reform or other major changes in legislation may have an impact on the time horizon used for pricing, profit testing, cash-flow testing, or gross premium valuations. It would be difficult for us to convince each other that with health care reform likely less than a year away that it was necessary to extend our gross premium valuation 20 or 30 years into the future.

THE APPOINTED ACTUARY AND HEALTH INSURANCE

MR. BURTON D. JAY: I have some things to add to the discussion on the Health Practice Note. Questions 15, 16, and 17 relate to Section 7 opinions. Companies that fall below a specific size level and meet other requirements are not required to do adequacy testing.

Section 7 of the new model NAIC actuarial opinion and memorandum regulation describes the statement of actuarial opinion required of the appointed actuaries of these smaller companies. It is interesting to note that the "good and sufficient" language that was previously required in all actuarial opinions for life and health companies' annual statements is not a part of Section 7 opinions. No actuarial standard specifically relates to Section 7 opinions, however, a "compliance guideline" is currently in the exposure period.

Section 7 and the compliance guideline make it clear that an actuary signing the opinion under this section merely attests that the reserves meet the legal requirements of the state in which the statement is filed. The reserves do not actually have to be adequate! The old AAA recommendation 7, which was the standard for opinions prior to the new valuation law and regulation, required that reserves be at least equal to gross premium reserves. This is no longer necessary for a clean Section 7 opinion, except for states that have passed the NAIC model law, "Minimum Reserve Standard for Individual and Group Health Insurance Contracts." This law states that a gross premium valuation is the "ultimate test." For health insurance sold in states not having this law, and for life and annuity products sold in any state, valuation actuaries filing Section 7 opinions have far less public responsibility than was the case before the new valuation law!

Part 6 -- Reference Materials

This section lists the relevant standards of practice, various state laws and regulations, and other sources that are available to assist the appointed actuary in forming an opinion for the various health lines. Prior valuation actuary symposium proceedings are prominently among the list. "Professional Actuarial Specialty Guide I-1-92, U.S. Statutory-Financial Reporting and the

Valuation Actuary" is also suggested. This guide lists a number of additional documents, though it may be becoming somewhat dated. This practice area is evolving rapidly.

Update on Solvency Issues

The Health Financial Issues Task Force was appointed by the SOA Vice President in the health practice area, Sam Gutterman, in March 1993. I was asked to chair the task force. We have had meetings on June 7 and August 31, 1993.

The charge of the task force is to support the needs of the actuary responsible for valuation, cash-flow testing, other asset adequacy analysis techniques, dynamic solvency testing, and minimum surplus requirements with respect to health-related risks. We are to identify what tools and techniques need to be developed and to conduct or commission the related research and education. The scope of the task force includes health insurance companies, Blue Cross/Blue Shield organizations, HMOs and other health provider cooperatives, uninsured health plans, and state risk pools.

One of our first tasks was to identify all of the committees, task forces, work groups, and so on of the SOA, AAA, ASB, CIA, and so on who were also doing work related to health insurance and assign someone on our task force to follow their projects. At this point we are following 22 such groups.

We have also selected four research projects to pursue:

1. Identify the risks and liabilities for state health insurance pools, guarantee funds, and self-insured groups.
2. Document and analyze the health carrier failures over the last 10 to 20 years. If we can discover the most common reasons we can better direct our efforts.
3. Study health underwriting cycles and discover their causes.
4. Find and document the gaps in technology and practice of health insurance, HMOs, continuing care retirement communities (CCRCs), accountable health partnerships (AHPs) and self-insured plans.

We have started to make some progress in the first two of these projects, but we have a very long road ahead of us.

MR. ABROE: Earlier in 1993, the Chicago office of Milliman & Robertson surveyed a number of companies active in health insurance. I'm going to discuss the results of the survey and relate the results to the practice note discussed previously during this session.

Twenty companies responded, some of which had a small amount of health business. The majority had sizeable blocks of health business.

We asked the type of year-end opinion prepared -- Section 7 or 8:

- Of the 20 respondents, 16 indicated they filed Section 8 opinions.
- For the four Section 7 respondents, it appears these companies would be considered class A or class B companies. One company filed for an extension and ultimately filed a Section 8 opinion.

  We're not sure how the four companies decided on a Section 7 opinion. What they may have meant is that their approach to health insurance was more on the lines of what a company who qualified for a Section 7 opinion may have done. We're hoping that's the case and assume that it is. For example, one company indicated a Section 7 opinion but also indicated that it did cash-flow testing.

We asked several questions relating to cash-flow testing:

- Of the 16 companies that filed a section 8 opinion, seven companies indicated they performed cash-flow testing on their health business. Of the nine companies that did not perform cash-flow testing, some of the reasons stated were:
  - Immateriality;
  - Immateriality and all health products rerated every year;
  - Primarily indemnity benefits, with current level of premium able to support benefits without investment income;

- Supplemental benefits with stable benefit ratios not subject to economic conditions and positive yearly cash flows;
- Assets allocated of sufficient quality and duration;
- Cash-flow testing done without investment income;
- Short duration of liabilities and assets and positive cash flow; and
- Business insensitive to economic conditions and short term in nature;

- Eleven of the companies reviewed assets for quality and maturity. Five of the respondents indicated a review but no cash-flow testing for health lines.
- Twelve companies indicated gross premium valuation testing for reserve adequacy testing purposes separate from cash-flow testing. There were four companies that indicated a gross premium but no cash-flow testing. All four companies reported reviewing assets for duration and quality.
- There were three companies that reported filing a Section 8 opinion that indicated none of the above analyses were performed. We did not ask what other testing, if any, was performed.
- Finally, of the seven companies that did cash-flow testing, only one company did not segregate assets. This company projected cash flows separately for each line of business, and then combined when testing for asset adequacy.

We asked several questions relating to sensitivity testing:

- Eleven companies indicated they performed some types of sensitivity testing on their health business.
- Ten companies performed interest rate sensitivity testing.
- Eight companies followed the "New York Seven" interest rate patterns. Two companies performed some other interest rate testing on their health business. I mentioned previously that seven companies did cash-flow testing. All seven followed the New York Seven, plus one other company performed a gross premium valuation.
- Only one company did sensitivity testing on claims trends. I would have thought more companies would have tested for trend. At least 10 of the responding companies have group or individual medical expense business.

- Seven companies did sensitivity testing for lapse, morbidity, and expense. These seven companies performed sensitivity testing for all three variables. Please note one company responded yes to the questions, but did not indicate what variables were tested. This company was not included as one of the seven companies.
- Several companies indicated they performed no sensitivity testing, or no sensitivity testing other than for interest due to immateriality or the nonsensitive nature of health business.

We asked how many years in the projection period. Fourteen companies responded:

Company	Years
1	5
2	4 to 10
1	10 to 15
3	20
1	25 to 30
5	30
1	60

Please note what is listed is the maximum projection period indicated. Several companies indicated shorter periods for group medical expense business. One company indicated some group blocks were not projected.

The projection periods roughly correlated to line of business such as:

- Ten years or less for group medical
- Some 25 years or more for long-term care and disability income

One question asked was, "Did you rely on a previous work product such as GAAP recoverability testing, value added analyses, or management projections?"

These were some of the responses:

- Several companies listed management projections.
- Similarly, several companies indicated GAAP recoverability analyses.
- One company listed budget preparations. This is probably the same as management projections.
- An appraisal analysis was listed by one company.
- Several companies listed Medicare rerating.

The purpose for showing this is that there are many analyses a company may be doing that can minimize the work load for the appointed actuary. It also doesn't make sense for the appointed actuary to reinvent the wheel, or to prepare an inconsistent scenario without good reasons.

We asked if the company anticipated more or less effort for year-end 1993. Of the 19 companies responding:

- Six companies indicated an expected work load similar to year-end 1992.
- Nine companies indicated they anticipated a more intense effort at year-end 1993. The following is typical of the comments received:
  - This year created models, next year will refine them
  - May introduce stochastic modeling
  - More scenario testing for 1993
  - Develop gross premium valuations for all lines
  - Will refine our methods
- Four companies indicated less work, primarily due to an anticipated Section 7 opinion for year-end 1993.

Finally, let me say that we are planning on a similar survey for 1993 year-end. If anyone would like to be included, please see me or send me your card.

HEALTH PRACTICE NOTES REQUEST FORM

The Health Practice Notes for the Appointed Actuary were sent to all members of the Life Financial Reporting Section in January 1994.

If you are not in the Life Financial Reporting Section, but would like a copy of the Health Practice Notes, please send this form to: Christine Cassidy, American Academy of Actuaries, 1720 I Street, NW, 7th Floor, Washington, DC 20006.

Name ____

Company ____

Address ____

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Phone ____