To: Mr. Michael Batte, Chair
Accident and Health Working Group of the NAIC Life and Health Actuarial Task Force

From: Mr. Bob Yee, Chair
American Academy of Actuaries[1] Long-Term Care Reserving Work Group

June 12, 2003

Dear Mr. Batte,

In my letter to you dated March 7th (see Appendix), I have outlined five areas of study relating to reserve methodology for Long-Term Care insurance. They are:

> *Experience Forms*
> *Morbidity Improvement*
> *Credibility*
> *Termination Experience*
> *Long Term Objectives*

Subsequently during a conference call, another area, *Reserve Assumptions in Relationship to Rate Changes*, was added at the request of your working group.

The Academy LTC Reserve Work Group formed six separate subgroups to address these issues. Attached is a progress report of our efforts. We would like your working group to review the update to ensure that we are addressing your needs.

Very truly yours,

Bob Yee
Chair, Long-Term Care Reserving Work Group
American Academy of Actuaries

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[1] The American Academy of Actuaries is the public policy organization for actuaries practicing in all specialties within the United States. A major purpose of the Academy is to act as the public information organization for the actuarial profession. The Academy is non-partisan and assists the public policy process through the presentation of clear and objective actuarial analysis. The Academy regularly prepares testimony for Congress, provides information to federal elected officials, comments on proposed federal regulations, and works closely with state officials on issues related to insurance. The Academy also develops and upholds actuarial standards of conduct, qualification and practice and the Code of Professional Conduct for all actuaries practicing in the United States.

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American Academy of Actuaries
Long-Term Care Reserving Work Group

Experience Forms Subgroup

Scope

The experience forms subgroup aims to present modifications to the existing Long-Term Care Experience Forms A, B, and C.

Initial Progress

The subgroup considered a proposal to calculate an experience reserve based on the accumulation of valuation net premiums less actual incurred claims using valuation interest rates and actual persistency. The ratio of the experience reserve to the tabular reserve would be presented by policy form and calendar duration in the experience report. The emphasis of the proposed experience report is reserve adequacy. The emphasis of the current Forms A, B, and C is compliance with minimum loss ratio requirements. The subgroup concurred that compliance with minimum loss ratio requirements is neither an industry problem nor a regulatory concern. However, there is great interest in reserve adequacy. The proposed experience reserve addresses the issues of better than anticipated persistency, and the slope of the claim cost curve that are particular concerns for the industry.

The experience reserve thus calculated is not intended to be a gross premium reserve, nor does it indicate deficiency/margin in the tabular reserve. The ratio of the experience reserve to the tabular reserve indicates whether or not the valuation net premium funds the tabular reserve at the valuation interest rate. The subgroup was presented the results of the proposed formulae for a hypothetical policy form with valuation claim costs that were initially lower, though steeper, than actual experience.

Subsequent Progress

Following direction of the NAIC AHWG, the subgroup is including the actual earned premium, actual incurred claims, and actual loss ratio in the proposed experience report.

The subgroup decided to develop two reports. New Form A will illustrate the experience of one calendar year, similar to the current Form A. However, calendar duration data will not be provided. Only summary data by policy forms or group of similar forms will be illustrated. The incurred claims will be compared to the expected claims under valuation assumptions. A comparison will also be made between in-force count at end of year to an expected in-force count. Data by policy form from the prior two years will be shown to assist in spotting trends. Calendar year detail is to be maintained and made available upon request.

The second report will illustrate inception-to-date experience, similar to the current Form B. The experience reserve will be calculated from the tabular reserve as of some recent year-end (e.g., 1995) as a substitute for inception, valuation interest rates, actual persistency, and actual incurred claims. The ratio of the experience reserve to the tabular reserve will be illustrated by policy form. No calendar durational data will be provided but data from each of the past 2 years will be shown. Calendar year detail is to be maintained and made available upon request.

The subgroup decided that experience by state, similar to the current Form C, was not relevant to reserve adequacy. However, Form C may be retained to show loss ratio data. A new Form D is proposed. This report would be the same format as Schedule O of the annual statement for all policy forms combined.

The subgroup has assigned the development of the two reports to groups of two members each. The groups are developing draft formats of the reports and instructions for completing the reports.

Remaining Tasks

The draft versions of the reports and instructions will be distributed to the entire subgroup. The subgroup will resolve any concerns of the members and address special issues (e.g., effect of rate increases). Industry should be surveyed (possible using the LTC Section of the SOA) to see if there are issues about the ability to complete the proposed forms. The final version of the experience reports and instructions will be distributed to the Academy's LTC Reserving WG for review and comment.

Inputs from NAIC AHWG

The subgroup is not seeking additional input at this time. There should be considerable discussion of the proposed experience reports and instructions when the final draft is presented by the Academy group. The proposed experience reports have a significantly different perspective than the current Forms A, B, and C.

Morbidity Improvement Subgroup

Scope

The subgroup considers the process in which a Commissioner may approve morbidity assumptions for active life reserves based on more than current and past experience.

Initial Progress

The subgroup initially sought information relating to morbidity improvements in uninsured population. The data from the National Long Term Care Surveys appear to support a general decline in prevalence of disablement through time. Initial discussions centered on translation of implications of non-insured data to insured experience, relationship to mortality improvement and translation of prevalence to incidence rates. The issue of separately identifiable morbidity improvement in projected claim costs was also discussed. Attached is a summary of the discussions, that may contain some positions not shared by the entire subgroup.

Inputs from NAIC AHWG

The proposed modifications to the Health Insurance Reserve Model Regulation of May 12 contain a draft prohibition of the use of expected future morbidity improvement to reduce reserves and only allow it based on a "known event that has occurred." The exception "is intended to be an extremely rare event."

Subsequent Progress

In light of the proposal, the subgroup has decided to re-focus its task to comment on the proposed regulations. The subgroup convened to prepare comments to specific portions of the proposal.

Remaining Tasks

The subgroup plans to comment on several topics: 1) the evidence of morbidity improvement associated with mortality improvement on non-insured population, 2) the single event theory, 3)possible value of a combination of morbidity and mortality improvement that more closely matches "expected plus margin" without "reducing reserves" as that term is being used by the AHWG, and 4) the blurring line between aggressive claim projection and explicit morbidity improvement.

Summary of Discussions

Morbidity Improvement Subgroup

May 20, 2003

__Scope Of The Report__
The subgroup sought to recommend a process in which a Commissioner may approve morbidity assumptions based on more than current and past experience. The AHWG appears to be opposed to assuming morbidity trends in reserves for future liabilities. Some actuaries have argued that ignoring morbidity trends raises the cost of capital to a degree that will discourage insurers from either continuing their sale of long-term care insurance or from entering the market.

__Population Trend And Its Causes__
The population experience has demonstrated both long and short-term trends in elderly disability prevalence rates. Incidence has improved even as life expectancy has improved. Evidence suggests that while length of disability has also increased, the incidence has decreased more. Accordingly the total days of disability have declined.

Diverse reasons have influenced morbidity improvement over the past one hundred years. Fewer complications from control of acute diseases at younger ages, improved education levels with awareness of wellness issues, and extensive technological advances are only a few of the many contributing factors.

The volume of factors supporting the improvement lends greater credibility to the expectation that the trend will continue. The volatility of the assumption is not dependent upon a small number of contributing factors. Thus, a vast number of circumstances need to change to alter the established trend.

__Insured Population Verses General Population__
Some have argued that the purchasers of LTCI have been more educated than the general population, and that the underwriting has already accounted for many of the contributing factors that are the assumed basis for general morbidity improvement trends. This logic may have some bearing on at least some insurers who did not write substandard policies, and whose underwriting considered the long-term medical history of the applicant. Yet even here, there are some contributing factors that are associated with improvements in care of certain debilitating conditions. For example, someone with Parkinson's disease can have late-stage symptoms reversed to early-stage levels through deep-brain surgery. The underwriting may have excluded those with early-stage symptoms at the time of application, yet it will not have excluded those who develop them later. The latter set of individuals will likely benefit from the improving surgical procedure. It delays the qualification for benefits and possibly reduces the duration of the benefits.

General population morbidity improvement ought to have more of an impact on insurers whose experience included substandard underwriting classes. While in most cases, some policies were declined, more of the contributing factors for general population morbidity improvement will also contribute toward morbidity improvement in these specific insured populations. The characteristics of insured populations that include substandard risks are more akin to the characteristics of the general population than are those of more selective insured populations.

Insured Population Trend Is Not Available
As the historical experience is not homogenous, insurers generally cannot demonstrate that the improvement has been present. For example, the LTC line of insurance as a whole has been associated with improvements in underwriting and claims administration as well as changes in standards for benefit eligibility and required sources of reimbursable services.

Specific Insured Population Morbidity Trends
Sometimes it is reasonable to recognize changes in morbidity as a consequence of changes in other factors. Changes in underwriting may have an impact on the degree that general population morbidity improvement impacts the insured population morbidity. New policy forms may, therefore, have a different expected level of claims than experienced on existing forms and may differ materially by issue age. Yet other items are specific to insured populations. For example, if the historical experience that identifies the assumed morbidity has relatively high lapse rates, it likely includes adverse selection. If lapses decline, the morbidity would likely improve relative to the exposure, as the marginally persisting policies are likely the healthier ones. This type of argument is supported by analogy to other insurance products, yet it too is difficult to demonstrate historically for the lack of homogeneity.

Commissioner Approval For Reserve Assumptions
Generally commissioners want support for the assumptions that company actuaries are using, and some want to see the morbidity improvement demonstrated in the past experience. Others will not permit morbidity assumptions beyond what is already present in the past or current experience. Hindsight suggests that some actuaries may have been overly optimistic with past pricing and reserving assumptions. Commissioners are concerned that morbidity improvement assumptions are more of the same.

The Cost Of Capital Without Morbidity Improvement Assumptions
While excessive improvement assumptions may be too optimistic, assuming no improvement may be too pessimistic. Maintaining reserves without a reasonable morbidity improvement trend is costly to the insurance company and to the policyholder. It is potentially detrimental to the market. The subgroup is working on examples to illustrate the effects of combining morbidity and mortality improvements.

Conclusion

Consumer value and insurer returns will be better served when the assumptions are permitted to be viewed together. While morbidity improvement may seem to lack the conservative nature that regulators prefer in reserve assumptions, it represents only one assumption among many, and the other assumptions may be conservative enough to generate total reserves that are higher than the confidence levels that regulators require. The commissioner ought to consider all of the reserve assumptions as a whole.

American Academy of Actuaries
Long-Term Care Reserving Work Group

Credibility Subgroup

Scope

The task of the subgroup is to review the credibility criteria as they relate to LTC experience analysis. The criteria will facilitate management actions such as reserve adequacy review and premium rate adjustments.

Initial Progress

The subgroup identified a number of tasks for this project:

1. Review references on credibility theory.
2. Discuss its applications as they related to LTC insurance.
3. Research, if necessary, methods for general and common applications.
4. Provide examples on how they can be used.

The subgroup has completed the first 2 tasks. See the attached summary of discussions.

Remaining Tasks

The subgroup has started to inquire about the possibility of an industrywide database in order to determine generic parameters for a loss distribution. This will be useful in devising a generic criterion for full credibility. The subgroup has contacted the Society of Actuaries' LTC Experience Committee.

The subgroup has also begun discussions on examples for applications, especially relating to credibility of duration experience and addressing issues relating to strengthening or de-strengthening reserves.

Summary of Discussions

Credibility Subgroup

May 28, 2003

Good references on credibility theory and applications are as follows:

- Herzog (1999), **Introduction to Credibility Theory** – Chapter 5
- Longley-Cook (1962), **An Introduction to Credibility Theory**

An excellent discussion of the use of the compound Poisson distribution in the collective or aggregate risk model is contained in:

- Bowers et al. (1986), **Actuarial Mathematics** – Chapter 11

"Rule of Thumb" for **incidence** is 1,082 claims for full credibility based on 90% confidence interval that it will fall within 5% of expected. The number of claims varies significantly based on the choices of the two variables.

Credibility and Event Counts

Maximum acceptable departure from the expected count	Probability of observed count falling within the acceptable range		
	90%	95%	99%
	Minimum required expected count		
+/-2.5%	4,329	6,146	10,616
+/-5.0%	**1,082**	1,537	2,654
+/-7.5%	481	683	1,180
+/-10%	271	384	663
+/-20%	68	96	166
+/-30%	30	43	74
+/-40%	17	24	41
+/-50%	11	16	27

Source: Based on Longley-Cook (1962).

Credibility of an aggregate loss is analyzed by considering the aggregate loss to be the product of the claim incidence and the claim severity for claims that actually occur. Since credibility calculations for the claim counts are already available, the easiest way to obtain comparable credibility calculations for the aggregate loss is based on an assessment of the coefficient of variation (CV = standard deviation divided by the mean) of both the individual and aggregate loss distributions.

Under the Poisson distribution for the claim incidence:

- The variance of the claim count is equal to the mean of the claim count.

- The variance of the aggregate loss is equal to the mean of the claim count times a multiplicative factor that is equal to the raw second moment of the individual loss distribution.

- For any given expected claim count and associated CV, this CV can be equated to the CV of the aggregate loss for a distribution with a larger, computable, expected claim count.

- The relative increase in the expected claim count is equal to the square of CV (denoted as CV^2) of the individual loss distribution, which typically falls in the range 2-4 for the individual loss distributions found in most lines of insurance.

- For the total increase for the aggregate loss, the multiplicative factor is equal to 1 + CV^2, which, therefore, typically falls in the range 3-5 for the individual loss distributions found in most lines of insurance.

- The minimum value of the multiplicative factor would be 2 if the individual loss distribution were an exponential distribution (since the CV = 1). There is consensus among members of the subgroup that LTC loss distribution is likely to be a mixture of exponential distributions which would have CV greater than 1. The expectation for LTC is that the value would be at least 3.

The credibility of the aggregate loss is assessed by multiplying the sample size in the credibility table for the claim counts by the multiplicative factor 1 + CV^2 derived from the individual loss distribution, as described above.

For example, assuming the multiplicative factor value is 3, the minimum standard of 1,082 claims would increase to 3,246 claims when the focus switches to aggregate loss. This would be the minimum expected number of claims needed to have a 90% chance that the actual aggregate loss is within +5% or -5% of the expected aggregate loss. Alternatively, with a multiplicative factor of 5, the number of claims needed for equivalent credibility would be 5,410.

If Nf is the number of claims for full credibility and Na is the actual number obtained, then the standard credibility factor is given as

$$Z = \sqrt{(Na/Nf)}. \qquad \sqrt{} = \text{Square Root}$$

The most credible estimate C of the process mean is then obtained as a weighted average of the actual claim costs A and expected claim costs E

$$C = Z*A + (1-Z)*E.$$

The ratio R of the most credible estimate to the expected value,

$$R = C/E = Z*A/E + (1-Z)$$

can be evaluated independently of the actual number of claims Na.

As an example, consider the case where R is compared to the loading used for adverse experience in setting the reserves. If the reserves were set assuming claim costs 1.2 times the best estimate (which is the same as the expected estimate E) and R were calculated as 1.1, then no action would be needed. If R exceeded 1.2 then one could consider modifying the reserve assumptions.

There will also be cases where R might be used to release reserves that had been previously strengthened or not.

The subgroup discussed the need to focus the effort on applications of the ratio R as a tool for assessing the adequacy of existing reserves in a way that would be acceptable to the regulators.

There may be value in developing industrywide estimates of CVs for individual loss distributions for use in determining the multiplicative factor $1 + CV^2$. The higher this factor the less will be the impact of the actual claim costs A. Conversely, the lower this factor the greater that impact. For companies with sufficient claim data, a specific loss distribution is more appropriate.

Finally, the subgroup acknowledged that, even with clarification of the use of credibility in the decision-making process, professional judgment would still be necessary for prudent decisions.

American Academy of Actuaries
Long-Term Care Reserving Work Group

Termination Experience Subgroup

Scope

Review publicly available information and experience for LTC voluntary lapses and mortality that reflect current industry trends.

Initial Progress

The subgroup identified six possible sources of LTC persistency data:

1. Florida rate stabilization compliance filings and North Carolina filings

It should be noted that it is not known whether the termination assumptions used in pricing are a best estimate of experience or if termination assumptions include margin for adverse deviation due to rate stabilization.

Forty-three product filings were reviewed representing thirty-nine long-term care insurance writers. Four of the companies write both individual and group long-term care business.

Thirty-eight of the filings were based upon recent rate-stabilization filings in the state of Florida. To supplement the one Florida group filing identified, five group filings from North Carolina were reviewed. The North Carolina filings were from calendar years 2001 and 2002.

Thirteen product filings, approximately one-third of the total, included lapse rates that vary by issue age. The three tables below illustrate individual, group and combined results, respectively.

Individual - Average Lapse Rates

Age Bracket	Duration 1	3	5	10	15	20
<30	7.6%	4.7%	2.9%	2.3%	2.3%	2.3%
30-39	7.6%	4.7%	2.9%	2.3%	2.3%	2.3%
40-44	7.6%	4.7%	2.9%	2.3%	2.3%	2.3%
45-49	7.6%	4.7%	2.9%	2.3%	2.3%	2.3%
50-54	7.3%	4.5%	2.9%	2.3%	2.3%	2.3%
55-59	7.3%	4.3%	2.9%	2.3%	2.3%	2.3%
60-64	7.4%	4.3%	2.9%	2.3%	2.3%	2.3%
65-69	7.2%	4.0%	2.7%	2.2%	2.2%	2.2%
70-74	7.5%	4.1%	2.7%	2.3%	2.3%	2.3%
75-79	8.0%	4.1%	2.7%	2.3%	2.3%	2.3%
80-84	8.1%	4.0%	2.8%	2.3%	2.3%	2.3%
85+	8.1%	4.0%	2.8%	2.3%	2.3%	2.3%

Group - Average Lapse Rates

Age Bracket	Duration 1	3	5	10	15	20
<30	11.8%	9.5%	7.0%	3.4%	2.9%	2.7%
30-39	10.6%	8.3%	6.3%	3.2%	2.8%	2.7%
40-44	9.8%	7.4%	5.2%	2.8%	2.7%	2.7%
45-49	9.3%	6.8%	5.0%	2.8%	2.7%	2.7%
50-54	8.8%	6.7%	4.4%	2.7%	2.7%	2.5%
55-59	8.8%	6.5%	4.4%	2.7%	2.7%	2.5%
60-64	8.3%	5.3%	3.9%	2.5%	2.5%	2.3%
65-69	8.0%	4.8%	3.8%	2.3%	2.3%	1.8%
70-74	7.4%	4.0%	2.1%	2.1%	2.1%	1.8%
75-79	7.1%	3.7%	2.9%	2.0%	1.8%	1.8%
80-84	7.1%	3.7%	2.9%	2.0%	1.8%	1.8%
85+	6.9%	3.5%	2.7%	1.8%	1.8%	1.8%

All Filings - Average Lapse Rates

	Duration					
Age Bracket	1	3	5	10	15	20
<30	8.2%	5.3%	3.5%	2.5%	2.4%	2.4%
30-39	8.0%	5.2%	3.4%	2.5%	2.4%	2.4%
40-44	7.9%	5.1%	3.3%	2.4%	2.4%	2.4%
45-49	7.8%	5.0%	3.2%	2.4%	2.4%	2.4%
50-54	7.5%	4.8%	3.1%	2.4%	2.4%	2.3%
55-59	7.5%	4.6%	3.1%	2.4%	2.4%	2.3%
60-64	7.5%	4.4%	3.0%	2.3%	2.3%	2.3%
65-69	7.3%	4.1%	2.9%	2.3%	2.2%	2.2%
70-74	7.5%	4.1%	2.7%	2.2%	2.2%	2.2%
75-79	7.9%	4.1%	2.8%	2.3%	2.2%	2.2%
80-84	8.0%	4.0%	2.8%	2.3%	2.3%	2.3%
85+	8.0%	4.0%	2.8%	2.3%	2.3%	2.3%

The table below summarizes the pricing mortality assumption used by the 43 products in the study.

Mortality Tables	Product Filing Count
83 GAM - no adjustments provided	15
83 GAM - 40%M/60%F blend	1
83 GAM - with selection factors only	3
83 GAM - setback 4.5 years	1
83 GAM - adjusted for 1984-1993 SOA Intercompany Study	1
83 GAM - 90% factor applied	2
83 GAM - 90% factor applied plus selection factors	1
94 GAM - no adjustments provided	1
94 GAM - 40%M/60%F blend	7
94 GAM - with selection factors	2
83 IAM - no adjustments provided	2
83 IAM - 10-year mortality improvement plus selection factors	3
80CSO	1
96 US Annuity 2000 - with selection factors	1
75-80 Select & Ultimate Mortality Table - 1/3M/2/3F and selection factors	1
75-80 Basic Ultimate Mortality Table - adjusted	1
Total Product Filings	43

2. HIAA Survey

    HIAA surveys were completed during the mid-90's and as such may be out-of-date. They could provide an historical basis for trends in persistency if other comparable data were made available.

3. ACLI Survey

    ACLI survey was completed during 2002. They have not released detailed information at this time.

4. SOA Experience Studies

    Results of the current SOA Experience Study, which will include experience through 2001, are not yet available. The most recently completed study of experience from 1984 through 1999 may be slightly out-of-date and may not properly reflect voluntary lapse rates and mortality separately.

5. Massachusetts Persistency Report

    Massachusetts survey – Nationwide data suggested persistency worsened for policies issued during 1992 as of 1996 as compared to policies issued during 1997 as of 2001. Due to staff resource limitations, the detailed information has not been provided for further analysis.

6. NAIC Long Term Care Experience Reports for 2001

    Review in progress.

Inputs from NAIC AHWG

The proposed modifications to the Health Insurance Reserve Model Regulation of May 12, regarding termination rates*,* contained the following.

(I)   Mortality (as specified in Appendix A); and

(II)   Terminations other than mortality, where the terminations are not to exceed:
- For policy years 1 through 4, the lesser of 80% of the voluntary lapse rate used in the calculation of gross premiums and:
  - 6% for the first policy year,
  - 4% for policy years 2 through 4; and
  - 2% for policy years 5 and later, except for group insurance, which may use 3%.

Subsequent Progress

The subgroup compared the proposed modifications with the results of the Florida and North Carolina filing results and noted the following observations.

- 80% of the average **individual** voluntary lapse rates used in pricing are fairly consistent with the proposal.
- 80% of the average **group** voluntary lapse rates used in pricing are higher than the proposed limits in the early durations but within the 3% ultimate limit
- There appears to be a movement away from the use of 83GAM (unadjusted) as the base pricing mortality table. Twenty-three of the forty-three filings are using a more conservative mortality table.

Remaining Tasks

Supplement the results of the Florida and North Carolina filing review with relevant information obtained from the other sources noted above.

American Academy of Actuaries
Long-Term Care Reserving Work Group

Reserve/Rate Change Assumptions Subgroup

Scope

This subgroup was not initially established by the Academy Work Group. During a conference call of the AHWG, the regulators asked the Academy to consider the manner in which reserve assumptions should be coordinated with revision to pricing assumptions when premium rates are changed. While some initial approaches can be examined based on current NAIC Models, it is felt that this work should be tied more closely to the long term objectives subgroup which is to recommend processes for future changes to key reserve assumptions.

Initial Progress

The subgroup drafted an analysis of existing statutory regulations of reserve changes. It noted that new reserve assumptions becoming the base for all future policy reserves for a policy form come from only one source: The Health Insurance Reserves Model Regulation, Section 4.D. requires testing "to determine the continuing adequacy and reasonableness of the tabular reserves giving consideration to future gross premiums." The draft then addresses reserve increases, with and without premium changes and reserve decreases noting the changed Statutory reporting for these under SSAP No. 54.

Inputs from NAIC AHWG

As noted above, the AHWG input was the impetus for establishing this subgroup.

Remaining Tasks

The draft analysis needs to be completed and provided to the AHWG. Areas where the current regulations should be more detailed for LTC reserve changes and the manner in which those changes should be established will depend on the reactions of the AHWG.

American Academy of Actuaries
Long-Term Care Reserving Work Group

Long Term Objectives Subgroup

Scope

The long term objectives subgroup is looking at the structure of policy reserves, including minimum standards, reserve methods, implementation of more effective feedback loops and recommending processes for future changes to key reserve assumptions.

Initial Progress

The subgroup initially determined on a three-part focus, building on the work of several of the other subgroups. The subgroup hoped to (1) focus on asset adequacy analysis and stronger feedback as the structure using Society of Actuaries studies and tables as the base; (2) work with the AHWG to develop professional and regulatory standards for initial and continuing adequacy testing with the structure to address when and how reserve assumption changes would be implemented (noting the likely need to coordinate with revisions to pricing assumptions) and (3) work with the LTC Section of the SOA to assess the industry capabilities to operate within such a structure.

Inputs from NAIC AHWG

The AHWG raised concern with the lack of a minimum morbidity table and the extent of reliance on asset adequacy analysis as the base for the new structure. The subgroup was asked to address the development of a minimum morbidity table for future business. Such a change would revise all the other parts as well.

Subsequent Progress

The subgroup has attempted to understand the current work of the SOA's LTC Valuation Committee of the LTC Experience Committee. This understanding will allow a better proposal which will recognize the extent any SOA table is capable of becoming a useful minimum morbidity table and the degree to which actuarial judgment will still be required to adjust the table.

The subgroup also takes note of the work of the Credibility subgroup and Experience Forms subgroup as a solid base for the comparison of actual to expected for feedback and as the underlying support for possible reserve changes.

Remaining Tasks

Given the desire to complete the short term objectives, the members have not focused attention on particular tasks to complete the long term objectives. As noted above, regulators have provided responses that entail new directions for reserve standards. The SOA's completion of proposed morbidity tables is clearly the key item.

APPENDIX

To: Mr. Michael Batte, Chair
Accident and Health Working Group of the NAIC Life and Health Actuarial Task Force

From: Mr. Robert K. W. Yee, Chair
American Academy of Actuaries[2] Long-Term Care Reserving Work Group

March 7, 2003

Mr. Batte,

The Long Term Care Reserve Work Group of the American Academy of Actuaries (Academy) is ready to assist your Work Group in a thorough review of the reserve methodology relating to Long Term Care (LTC) insurance. We understand your group's desire for both a near-term and a long-term solution. Accordingly, we have formulated the following 'work order' proposal.

Near-Term Objectives:
1.   Review the current requirements in the Health Insurance Minimum Reserves Model Regulation to address three aspects:

   a.   Termination Assumptions
        The Academy Work Group will review the potential use of the results of a SOA/LIMRA persistency study that is not yet completed. The Work Group will also review the potential use of industry trade (HIAA and ACLI) studies of total termination rates that may provide more timely data. The Work Group will make a good-faith effort to distinguish voluntary lapses from deaths.

   b.   Morbidity Improvements
        The Academy Work Group will review the ways in which Commissioner approval of morbidity tables can be augmented to address assumptions other than current experience.

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[2] The American Academy of Actuaries is the public policy organization for 14,000 actuaries practicing in all specialties within the United States. A major purpose of the Academy is to act as the public information organization for the actuarial profession. The Academy is non-partisan and assists the public policy process through the presentation of clear and objective actuarial analysis. The Academy regularly prepares testimony for Congress, provides information to federal elected officials, comments on proposed federal regulations, and works closely with state officials on issues related to insurance. The Academy also develops and upholds actuarial standards of conduct, qualification and practice and the Code of Professional Conduct for all actuaries practicing in the United States.

c. Credibility Standards
The Academy Work Group will review existing literature on credibility as it applies to the data used to justify reserve assumptions or to make modifications to the assumptions to reflect differences (as required by ASOP No. 18).

2. Review current experience reporting requirements to increase their effectiveness:

a. Persistency Experience
The Academy Work Group will investigate the information disclosed in the Experience Reporting Forms and recommend future improvements to gather more useful persistency data.

b. Expected Claims
The expected claims in the current Experience Reporting Forms are based on pricing expectation of distribution of business. Actual product mix may be different than pricing expectation. The Work Group will review the use of actual mix of business to come up with expected claims.

c. Claim Reserves
Current Experience Reporting Form A provides a unique basis for looking at the adequacy of claim reserves. The Work Group will review the manner in which this form is being used and what changes would enhance the review of claim reserve adequacy.

Long-Term Objectives:
1. The Academy Work Group will review the entire basis for developing minimum statutory contract reserves. Under the applicable model regulation, this review will include the mechanism for the setting and release of the margins in the reserves over the anticipated experience. Furthermore, the Work Group will consider differences and similarities between the reserving practices of LTC and other lines of business.

2. The Work Group will look into the potential value and manner in which improved feedback loops can be incorporated into the assessments of future experience. The Work Group will determine the mechanism of how reserves may be 'unlocked' (either to build at a slower or faster rate), given credible new information.

3. The Work Group will consider the relationship between statutory reserves and risk-based capital to ensure total capital adequacy.

The Academy Work Group expects to present its findings and recommendations for the near term objectives by the end of this year. The expected completion date for the investigation of the long term objectives will be determined at a later date when a

detailed list of tasks have been identified. At this time, the Work Group intends to work on the near term and long term objectives simultaneously.

Very truly yours,

Bob Yee
Chair, Long-Term Care Reserving Work Group
American Academy of Actuaries