

RECORD OF SOCIETY OF ACTUARIES 1995 VOL. 21 NO. 3A

HEALTH RISK-BASED CAPITAL (RBC): PRICING AND FINANCIAL IMPLICATIONS

Debaters: HARRY L. SUTTON, JR.
 WILLIAM C. WELLER

Debaters will participate in discussions regarding current developments with health risk-based capital, including financial and pricing implications. In addition, NAIC activities will be addressed, as well as issues specific to insurers and HMOs.

MR. WILLIAM C. WELLER: I am senior actuary with the Health Insurance Association of America (HIAA). Our other panelist, Harry Sutton, is senior vice president of health care for Allianz Life. Both of us were involved with the RBC development, including the Academy's work for Health Organization RBC (HORBC). I will give some background, compare the current life and health (L&H) formula with the Academy's proposal, which the NAIC is looking at currently, and give you some idea of where some of the issues are, with a focus on commercial, broad-scale health insurance arrangements.

Then Harry will talk about specifics relating to managed care arrangements. We will leave a fair amount of time at the end for people to ask any questions and talk about some of the pricing implications or concerns that they have had.

Let me cover some of the background. The L&H RBC formula was developed during the 1991-92 period, although several states and, obviously, the rating agencies, had prior formulas. The property and casualty (P&C) formula followed in 1993. Also, at the time that the Academy started work on HORBC, the Blue Cross/Blue Shield Association had developed a formula that dealt very specifically with all kinds of health insurance risks with insurance companies.

When it was first developing the formula, the goals of the NAIC were to differentiate well-capitalized companies from other companies. The NAIC was to define, specifically, authority for actions by the regulators, to define what actions were appropriate based upon various levels of RBC to actual surplus and, I think, certainly in a number of areas, there was a subgoal to encourage management to avoid some types of risk without higher levels of surplus.

The original formula was developed with a strong emphasis for life companies looking at the asset side of the balance sheet. The regulators were going through the Executive Life problems at that time and the problems of how to deal with the riskier investments that some companies had in their investment portfolios. But because the formula was supposed to be a very broad one, they did want to include health. The first thought was that they use a single percentage for health insurance because 25% was the number in New York's formula. Obviously, there was a good bit more in the final result.

The existing formula is combined for life, annuity, and health RBC. A P&C company that has more than 5% of its premium in a health line is supposed to use the health portion of the L&H formula to do its C-2 risk portion. The L&H formula uses the "C" approach, defined in actuarial literature where C-1 is the asset risk and C-2 is the liability or obligation risk. C-3 is the timing risk and C-4 is the business risk. The existing formula also has

covariance adjustments to recognize that all the risks are not additive and there is some ability to offset.

Unfortunately, at this point in time, there are three different proposals on covariance. L&H has one. P&C has a different one, and the Academy's proposal for HORBC has (perhaps) a third one.

The directions given in developing the existing formula were to keep it relatively simple and to use, wherever possible, only items that were already in the statutory market. For health, most of the exposure was tied to Schedule H premium, with the expectation that Schedule H would be revised and would show earned premium along the lines of the RBC categories. (The current Schedule H shows it by renewal category.)

Following the implementation of the RBC formula, the NAIC also developed a model law. The model law has to be approved by the states, and this is part of the accreditation procedure. The formula is not approved by the states as part of the annual statement instructions, so the NAIC has full control over the formula.

There are concerns that have been expressed with the health aspects of the current formula. The feeling is that in many situations, it's too simple, especially regarding the need to include some kind of managed care adjustment. It is thought to be too high for HMOs. It is thought to be low for some types of stop loss.

Finally, I have seen some articles that focus on the covariance adjustment in showing how a company can reduce its RBC. By way of explanation, the L&H covariance formula is:

$$\text{Total}_{C-4} + \sqrt{(\text{Total}_{C-1} + \text{Total}_{C-3})^2 + (\text{Total}_{C-2})^2}$$

Again, C-1 is the asset risk and C-3 is the timing risk. By combining these, it reflects the feeling that the timing risk was all related to the investment portfolio. The C-2 obligation risk is considered to be unrelated to C-1 and C-3 because there are no C-2 factors for annuities, and the C-2 factors for life insurance relate strictly to the amount of risk. The square root of these squares was added to the C-4 risk value.

The NAIC focus at the time the formula was being developed was on large life insurance companies with significant investment-oriented products. It was looking at companies that had substantial C-1 risk and not much C-2 risk. So the covariance adjustment did not have a great effect on the ones it was looking at. But companies with mostly health coverage have predominantly C-2 risk. The concern is that if it is a subsidiary, the RBC of the parent uses the subsidiary's RBC after covariance as a C-1 risk. That was part of the problem that a number of people have raised. Others have noted that reinsurance among affiliates can be organized to maximize the value of the covariance adjustment.

More recently there was an additional concern. The issue for the NAIC was that the L&H formula apply only to companies that had to file the L&H annual statement or the blue blank line as it's called. The P&C formula is applied only to companies that had to file the P&C statement or yellow blank, and there was no formula for those that filed an HMO blank or the hospital, medical, dental insurance (HMDI) blank. So there was a desire to address the formula in a way that looks at all types of insurance.

HEALTH RBC: PRICING AND FINANCIAL IMPLICATIONS

In late 1993, the NAIC asked the Academy to create a health RBC formula by using a consistent model that wasn't limited by the original goals and to keep it simple and use statutory statement values to the extent possible. The Academy, under the leadership of Bill Bluhm, chair of the Committee on State Health, put together a task force and spent a considerable amount of time during 1994 doing everything that the NAIC has asked them to do. In December 1994 they presented their final report to the NAIC. They used a consistent model so that the report has factors that have a relative value (RV) attached to them. This RV is designed to provide equal protection against ruin for various types of health coverages. The aim was that the NAIC would define the base number for $(1.0)RV$. You should contact the Academy's office if you want a copy of the report.

The other thing that the report did was focus on the underlying risks and not limit the formula to the statutory statement by trying to keep it simple. And that is an area that has caused some problems as the NAIC now seeks to simplify.

I have compared the current formula for various types with the Academy's proposal with an assumed $RV=0.09$. As I said, the relative value approach was used by the Academy because the desire was to relate RBC for one type of health coverage to other types but not to usurp from the NAIC its responsibility for deciding how to make all those consistent with the level of risk in the RBC formula for life companies and for P&C companies in the various product lines. So the idea was to present the report on the basis of relative value. When the model was run for each product type, it was used to determine the surplus that was needed so that the probability of ruin was 5% across all lines. These surplus amounts were compared and presented in the report as relative values. I have used the base numbers so you can get a comparison with the current formula. It is my belief that 5% is approximately consistent with the L&H RBC formula that was developed in 1992. But the aim was to allow the NAIC to move to a higher risk or a lower risk percentage if it wanted.

Table 1 shows the individual hospital or major medical type of coverages. The current formula used a larger number for the first amount and a smaller number thereafter. There were two reasons for this. First, we thought that there was some lowering of the risk that was likely: reduction in fluctuation, better monitoring of the results as the block got larger. Second, we wanted to have a larger factor for companies just entering the business—the cost to cover the learning curve—and we wanted to have larger RBC for that. So the formula uses 25% on the first \$25 million, and 15% on everything above that.

There were no managed care offsets. There was no variation on prior approval of rates. The proposed Academy formula uses a base dollar amount of \$1.5 million, plus 9% of incurred claims. I put a number in here using a loss ratio so that you could relate it to premium if you wanted to.

Then there are some adjustments for managed care. The managed care offsets are a full page of rather tight descriptions in a table that you calculate. I have condensed them to general rules. The \$1.5 million was designed to deal with statistical fluctuations. It can be reduced through reinsurance because you can reduce that to two times the maximum net amount at risk that you have on any individual.

RECORD, VOLUME 21

TABLE 1
HORBC COMPARISON TABLE
TYPE OF COVERAGE: INDIVIDUAL—USUAL, CUSTOMARY,
AND REASONABLE (UCR) MAJOR MEDICAL AND HOSPITAL

Current Formula	AAA Proposal (1.00 RV = 9%)
25% × earned premium to \$25 million	\$1,500,000
15% × earned premium above \$25 million	+9% × incurred claims (7.7% premium at 85% loss ratio)
<ul style="list-style-type: none"> • No managed care offset • No variation for prior approval of rates 	-1.4% × negotiated claims payments -2.2% × claim payments subject to withholds -3.6% × capitation payments

Table 2 is for group insurance for hospital and major medical. For the original formula there was a feeling that there was a distinct difference between individual and group that related primarily to the regulatory effects of dealing with individual, that your ability to respond to situations where the trend was significantly different than what you had assumed in your pricing took longer in the individual than it did in the group insurance area, so there is a higher factor for individual than for group. The Academy proposal has an adjustment specifically for rate approvals, which is not in the original formula and which has caused a considerable amount of concern among a number of regulators; it is two different ways to recognize the same risk. Both the current formula and the Academy formula use the same approach for group as for individual, but with the separate factor the Academy formula is able to combine the two into one factor.

TABLE 2
HORBC COMPARISON TABLE
TYPE OF COVERAGE: GROUP—UCR MAJOR MEDICAL & HOSPITAL

Current Formula	AAA Proposal (1.00 RV = 9%)
15% × earned premium to \$50 million	\$1,500,000
7% × earned premium above \$50 million	+9% × incurred claims (7.7% premium at 85% loss ratio)
<ul style="list-style-type: none"> • No managed care offset • No variation for prior approval of rates • No variation for rate guarantee periods 	-1.4% × negotiated claim payments -2.2% × claim payments subject to withholds -3.6% × capitation payments

Table 3 relates to stop-loss or minimum premium insurance.

HEALTH RBC: PRICING AND FINANCIAL IMPLICATIONS

TABLE 3
HORBC COMPARISON TABLE
TYPE OF COVERAGE: STOP-LOSS AND MINIMUM PREMIUM

Current Formula	AAA Proposal (1.00 RV = 9%) Grossly Simplified
$25\% \times \text{earned premium (specific stop-loss + aggregate + ASO revenue)}$ <ul style="list-style-type: none"> • No managed care offset • No variation for prior approval of rates • No variation for rate guarantee periods 	Group: $15\% \times \text{SSL (specific stop loss) premium (SSL < \$100,000)}$ $25\% \times \text{SSL premium (SSL } \geq \$100,000)$ Individual: $10\% \times \text{premium (deductible < \$100,000) +}$ $17.7\% \times \text{premium (deductible } \geq \$100,000) +$ $0.5\% \times \text{premium equivalent}$

*Varies based on aggregate risk level.

When the current formula was developed in 1991–92, the reliance on the statutory statement meant that there was not much information on stop-loss exposure. So we tried to pick up what we could get and used a number that was very rough. The Academy has done a considerable amount of work and produced a number of charts that recognized that you have to deal with what the attachment points are relative to the risk and that the attachment points for a specific and aggregate worked together. Thus, you end up with a very detailed formula, and it requires a significant amount of internal company data.

Table 4 shows Medicare supplement insurance.

TABLE 4
HORBC COMPARISON TABLE
TYPE OF COVERAGE: MEDICARE SUPPLEMENT

Current Formula	AAA Proposal (1.00 RV = 9%)
12% earned premium	$7.7\% \times \text{earned premium (to 5,000 lives)}$ $6.2\% \times \text{earned premium (above 5,000 lives)}$

By way of background, there was a fair amount of work done in the development of the current formula for medical plans and for disability income. For other types, the factors were developed more in relationship to the medical/disability income values based on discussions with some regulators. So the values for Medicare supplement and many of the supplemental coverages use very broad numbers. The Academy did considerably more work by using the consistent model and, as you can see, the numbers are generally comparable. I think in most places they are a little bit lower. They are more refined in that they try to deal with looking at the statistical variation that comes from small blocks of business.

Table 5 is specified disease coverages. The current formula for the supplemental coverage has two factors. One is used if the company expects that it will implement rate increases. The other is if it does not expect to implement any rate increases. The Medicare supplement that was just shown is exactly the same as this current formula, except I don't know of any company that tries to write Medicare supplement and doesn't expect rate increases.

RECORD, VOLUME 21

The Academy did it a different way, and I think that there are probably some good reasons for this. It looked at it from the point of view of guaranteed renewable versus noncancellable. There is clearly a higher risk because you don't have the ability to change rates. In the current formula, a noncancellable product would have a lower-rate RBC factor than the same product issued with the expectation of implementing rate increases. In the Academy's formula, it has a higher one. I think that the Academy's formula is more logical when you are looking at any one particular type of coverage.

TABLE 5
HORBC COMPARISON TABLE
TYPE OF COVERAGE: SPECIFIED DISEASE

Current Formula	AAA Proposal (1.00 RV = 9%)
12% × earned premium (if rate increases expected)	Guaranteed renewable (with at most one-year rate guarantee)
8% × earned premium (if no rate increases expected)	15% × earned premium (to 5,000 lives)
	7% × earned premium (above 5,000 lives)
	Noncancellable
	16.3% × earned premium (to 5,000 lives)
	7.7% × earned premium (above 5,000 lives)

Hospital indemnity coverage is shown in Table 6. As you can see, the current formula does not change for all these various types of supplemental coverages. But the Academy's formula, which looked separately at industry experience for each product and then ran those data through the same model, produced different results for each of the various types. Again, the formula has some differences by size to recognize the statistical variation.

TABLE 6
HORBC COMPARISON TABLE
TYPE OF COVERAGE: HOSPITAL INDEMNITY

Current Formula	AAA Proposal (1.00 RV = 9%)
12% × earned premium (if rate increases expected)	Guaranteed renewable (with at most one-year rate guarantee)
8% × earned premium (if no rate increases expected)	10.8% × earned premium (to 5,000 lives)
	7.0% × earned premium (above 5,000 lives)
	Noncancellable
	11.9% × earned premium (to 5,000 lives)
	7.7% × earned premium (above 5,000 lives)

Table 7 is for accident coverage. Again, the statistical variation caused the Academy's formula to become much more detailed in terms of trying to deal with the potential for significant variations in benefits provided and results.

HEALTH RBC: PRICING AND FINANCIAL IMPLICATIONS

TABLE 7
HORBC COMPARISON TABLE
TYPE OF COVERAGE: ACCIDENT INSURANCE

Current Formula	AAA Proposal (1.00 RV = 9%)
8% × earned premium	Accidental death coverages \$300,000 for guaranteed renewable + 5% × earned premium (to \$6,000,000) - 1% × earned premium (above \$6,000,000) For noncancellable + 5.5% × earned premium (to \$6,000,000) + 1.1% × earned premium (above \$6,000,000) Other accident coverages 4.5% × earned premium

Table 8 relates to disability income (DI) and long-term-care (LTC) insurance. In June 1995, a preliminary proposal was put out that had significantly higher numbers, which caused a number of the large DI writers to become much more involved in the process than they had been prior to that, and results developed based on significantly more data. Long-term care was included in DI, primarily because the Academy's model uses a significant amount of historical industry experience as input. There was not a lot of historical experience that we could develop from a number of companies for LTC. So the decision was that the closest thing to LTC was disability income. The proposal is to use these factors based on DI until we develop sufficient experience in long-term care to use that as input.

TABLE 8
HORBC COMPARISON TABLE
TYPE OF COVERAGE: DISABILITY INCOME AND LONG-TERM CARE

Current Formula—Individual	AAA Proposal (not subject to RV)
Noncancellable 35% × earned premium to \$50 million 15% × earned premium above \$50 million Other 25% × earned premium to \$50 million 15% × earned premium above \$50 million	25% × earned premium (to 25,000 lives) 10% × earned premium (above 25,000 lives)
Current Formula—Group 25% × earned premium to \$50 million 15% × earned premium above \$50 million	<ul style="list-style-type: none"> ● Noncancellable: increase proportion of RBC from noncancellable premium by 10% ● Maximum benefit period < 2 years—decrease proportion of RBC from premium by 25% ● Minimum—3 × maximum benefit/month × longest period covered (not to exceed 100 months)

This part of the formula is the only one that does not relate to the relative value. These are specific numbers. Again, there is a distinction by size in both formulas. There is also a distinction by benefit period in the Academy's formula.

The Academy's formula includes a minimum dollar amount, which comes out of a calculation based on the highest total benefit and which can result from the combination of

exposed monthly benefit and period of coverage. If somebody has coverage for \$2,000 per month for 24 months and another has \$500 per month for 60 months, the maximum is based on the first, even though the second has a longer benefit period. If someone has coverage of \$400 per month to age 65, then that would be 400 times 100 months. That maximum is multiplied by three to get the dollar amount for the RBC for disability income. After you run through the percentages, if the dollar amount is larger, the RBC has to be at least that amount.

When using different values based on the number of lives, the aim would be to develop a ratio for 25,000 lives to the total number of lives. That ratio is applied to the higher percentage, and the balance of one minus the ratio is applied to the lower percentage. This produces an average RBC value. You don't get to pick which 25,000 lives, nor do you have to go through your in force to find the 25,000 that would have the highest RBC; just average the number of lives. The formula is applied separately to DI and LTC.

It is not shown, but there is also a factor applied to reserves. The current formula uses 5% of total reserve in Exhibit 9. The Academy's formula uses a percentage that is applied to both the Exhibit 9 and Exhibit 11 reserves. It varies based upon the number of lives.

The current formula tried, to the extent possible, to not apply any factors to a reserve. Therefore, we used premiums to the extent possible. There's no credit given for reserves in excess of minimum anywhere. We thought when we developed the current formula that there was a risk that the economic conditions would stray over time and that, therefore, the disability income reserves that the actuary established could turn out to be deficient because of changes in economic conditions. That's why 5% is added based on Exhibit 9 but there is not any factor for Exhibit 11.

The Academy, in its work, looked at the statistical variations as well as a risk variation and because it was a statistical part of it, applied an RBC factor to both the Exhibit 9 and 11 reserves. But the factor applies only to reserves on DI and LTC. There is nothing on reserves for major medical, for example.

The aim throughout has been the assumption that the valuation actuary has set appropriate reserves, the pricing actuary has set appropriate prices, and what we are dealing with is the effect on surplus if those appropriate prices and reserves over time are affected by things being different from assumptions, and you make delayed adjustments.

Again, the current formula has different factors for individual versus group and the Academy's formula does not. In fact, the current formula would look at each separate section and apply the size adjustment based on the dollars of premium to each section. Thus, the current formula does not give any benefit for having multiple markets, whereas in the Academy's formula, the 25,000 lives is for individual, group, and all renewal categories combined.

There is no RBC on self-funded plans. The RBC does not apply to them unless the Department of Labor (DOL) decides to do something. At this point in time, the NAIC is only able to regulate the insurance companies. If an insurance company is doing claims-servicing and that is all, there is a 0.5% RBC value that is looked at as covering a credit risk on the basis that the company may end up having to pay some claims but not collect

HEALTH RBC: PRICING AND FINANCIAL IMPLICATIONS

from the plan. If you have stop-loss coverage, then the Academy's formula tries to deal with what risk the insurance company has—statistical as well as missing the trend on the stop-loss risks.

I picked Table 9 up earlier in June [1995] at the NAIC meeting. When the current formula was developed, it used some premium breaks that were not in the annual statement. The product line breakdowns were not available, and it's hard to find them. But once the companies provided their RBC reports to the NAIC, the NAIC could add them together and give us some distributions that were not previously available. This is from the L&H RBC reporting for 1994. It shows the distribution of the earned premium by various product types. If you have ever wondered how much disability was of the total health premium, here it is. Obviously, there is no self-funding or administrative-services-only (ASO) data included here.

Where do we stand right now? The current formula is actually in effect at this point in time for any company that files the L&H annual statement or for any P&C company that has more than 5% of its premium in health. Those are the only companies that are required to use the current formula. The Academy's formula has been completed by the Academy, it was presented to the NAIC working group, and they are reviewing it to see how they want to use it.

In March 1995, the NAIC developed a survey that it sent to 125 companies to get some response to certain questions as well as likely levels of exposure to the RBC values. It reproduced the Academy's formula in a series of charts and asked the 125 companies to submit their results. Its primary concern was the ability to gather the data and information on the amount and complexity of that data, and to identify problems that the companies would have in reporting. Out of 125 carriers that received surveys, 30 responded. From the various categories (each category had 25), 7 were L&H companies, 6 were Blue Cross/Blue Shield plans, 10 were HMOs, 3 were HMDI plans, and 4 were P&C companies.

A rough summary of the responses were that there were problems with some of the breaks that the Academy's formula used. One of them, in particular, was the split between deductibles of under \$2,500 and over \$2,500 for major medical. Many companies responded that they had a series of deductibles within a policy form so that policyholders could choose a combination of premium deductible. These companies did not have claims data available that were split on things such as deductible.

There were a number of concerns with the stop-loss segmentation. You would need to break down your business by various attachment points and apply the factors to the premiums for each subset. Many companies were having many problems breaking their stop-loss business into the specified subsets. Finally, there were many problems or concerns with definitions. Anytime you are trying to break things into segments, the companies raise questions based on their specific products and nomenclature. I am sure that it is in the current formula, too, but it was less because there were fewer segments in the current formula.

TABLE 9
LIFE RBC SUMMARY –
HEALTH INSURANCE PREMIUMS BY MAJOR CATEGORY

Line #	Type of Business		Major Category	Earned Premium	% of Total	RBC	% of Total
01	Medical Insurance	Individual	Usual & customary major medical & hospital	3,490,356,490	4.4	663,385,887	7.2
02	Medical Insurance	Individual	Medical supplemental, dental, other limited benefit anticipating rate increase	4,906,493,120	6.2	588,779,179	6.4
03	Medical Insurance	Individual	Hospital indemnity, AD&D, other limited benefit not anticipating rate increase	8,334,862,768	10.5	666,789,020	7.2
04	Medical Insurance	Group & Credit	Usual & customary major medical hospital & dental	41,319,525,548	52.0	3,451,133,620	37.5
05	Medical Insurance	Group & Credit	Stop loss & minimum premium	3,345,423,524	4.2	836,355,896	9.1
06	Medical Insurance	Group & Credit	Medical supplement, other limited benefit anticipating rate increase	4,846,509,267	6.1	581,581,113	6.3
07	Medical Insurance	Group & Credit	Hospital indemnity, AD&D, other limited benefit not anticipating rate increase	3,579,573,504	4.5	286,365,886	3.1
08	Disability	Individual	Noncancellable disability	3,036,603,361	3.8	724,253,379	7.9
09	Disability	Individual	Other disability	1,038,015,767	1.3	227,050,218	2.5
10	Disability	Group & Credit	Disability	5,593,014,461	7.0	1,174,271,717	12.8
Total	Total earned premium			79,490,377,810	100.0	9,199,965,915	100.0

HEALTH RBC: PRICING AND FINANCIAL IMPLICATIONS

The NAIC reported these results in June [1995]. The open issues are: simplification, auditability, managed care, and covariance.

Simplification—it wants to apply a simpler formula to the vast majority of companies and to have the complexity apply to a much smaller number of companies.

Auditability—it is very concerned with the formula's auditability. It is concerned with the auditability of the current formula. You can't get the product breaks that we have in the current formula from Schedule H, because Schedule H never was changed. The Academy's formula goes well beyond the product breaks in the current formula and would mean even more changes to Schedule H or providing within the annual statement a place where a company can report the separate values and where the company's accounting firm that is auditing the statement can say that these additional reported values are correct. Table 9 showed \$79 billion of premium for 1994. When the NAIC staff added up all the premiums for L&H companies, they came up with \$86 billion. So the companies that have completed the RBC report, which was designed to allocate the health premium into various categories managed to not allocate about \$7 billion of premium, which adds to the NAIC's concern for audits.

There are a number of managed care rules that the NAIC is concerned about, and Harry will talk about those. With respect to covariance, the NAIC will have to focus on the covariance rules because of the multiple approaches.

In closing, I would note that the RBC formula for health needs to be very carefully coordinated with a number of other things that the NAIC is doing. There is an invested assets working group. As we bring in HMOs, the issue of what admitted assets are will become important, and the invested assets working group of the NAIC must deal with that.

A group is working on the codification of statutory accounting, and if they set rules that change what becomes reported as premium or claims or assets, that can change the surplus and therefore the RBC ratios. A health blanks working group is looking at getting Schedule H to reflect the needs of the RBC formula, which may be changing at the same time that we are changing Schedule H.

The L&H RBC working group will ultimately receive whatever formula changes are developed for HORBC.

MR. HARRY L. SUTTON, JR.: I can't help thinking that while Bill and I both may be well-rounded, Bill is much more well-rounded than I am as far as knowledge of the insurance industry. I'm like the one-handed lawyer. I know the prepaid health care business, but I don't pay much attention to the rest of it, so I will talk about the problems primarily of the HMO industry. In addition to the C-2 risk, there are many other peripheral issues to the annual statement.

Let me just mention generally that the HMO industry has really had at least a modified RBC formula for the last six or eight years. If the HMO were fully capitated or prepaid like a staff model plan, the RBC would be only 2% of the first \$150 million of premium and 1% of the excess. Also, there are mandatory hold-harmless agreements and, though most HMOs were not involved in guaranty funds, regulators used the hold-harmless provisions

as producing a lower-level capital requirement. This didn't protect against insolvency, but it protected performance of contracts.

Probably the biggest problem is to measure the effect of HORBC on the HMO industry. That is why the NAIC is trying to get more reports from HMOs. The Group Health Association of America (GHAA) will send its own requests out to 125 HMOs, particularly smaller ones. The larger ones, such as Kaiser or big insurance-carrier-based HMOs, were represented in the RBC development. But the smaller ones were not, and nobody knows what the results of analysis would be. If the base factor is 9% less credits, which go as high as 50%, you're talking about 4.5% as the minimum compared with 1%, or a little more than 1%, on the old formula. So the HMOs are very concerned about whether the 9% is the correct "relative value."

The NAIC does not want to put anyone out of business that doesn't deserve to be out of business. So again, it is trying to measure the status quo and get the information as to how much the capital requirements will increase and whether that will place an HMO in jeopardy, even though it may be successful in operations. But HMOs encompass a wide range of contractual arrangements among providers and carriers, or HMOs, and management companies. I'll mention the key factors that relate to their concern. Some of these originally were briefly discussed by the RBC committees and then were decided to be beyond the scope of the committee, which is essentially related to C-2, which is the risk of the premium being inadequate.

A major question is recognition of land holdings and equipment. The NAIC model for investment for HMOs permits an unlimited investment in buildings—hospitals, clinics, expensive medical equipment, and everything else. It was considered beyond the scope of the HORBC committee. The question is, are these admitted assets for the HMO annual statement? With life companies, the greatest risk factor for recent insolvencies has been the reliability of their assets.

But for the HMO, it's more like telling General Motors that it must have RBC on its factories, and the factories are what produce the cars. So certain HMOs, such as Kaiser, for example, have billions of dollars of assets, which include real estate holdings, hospitals, and equipment used to deliver medical services. The question is, how will that affect RBC? I can see two parts possibly. It's possible that they may not be fully admitted as assets. Then the HMO might technically be insolvent.

The number of integrated health plans that we call prepaid group practice plans is relatively limited, but they're mostly quite large and not-for-profit. In fact, some of the individual practice association (IPA) models are now building facilities, and it will also be important for them as to whether they carry those assets on their balance sheets. So the integrated HMOs are those that own facilities. Even insurance companies such as Aetna and Prudential are building clinics. They're going to have total assets so large that the covariance factor will submerge any major effect of health C-2 risk. It's a different problem when clinics are almost your sole assets. So HMOs could have a problem.

Now, one factor is admitting the asset; the second one is the L&H RBC formula for C-1 risk. There is a 10% factor for real estate for RBC, which is important because it's a risky investment business for life companies. But where it is your method of production and its

HEALTH RBC: PRICING AND FINANCIAL IMPLICATIONS

depreciation goes into your premium each year, there's a question of what a reasonable factor would be. The covariance adjustment may have a leveling effect even if all the medical assets are admitted. Depending on relative premium size to asset base, the 10% would be minimized through the covariance adjustment because most of the risk is C-2, the premium adequacy.

Nevertheless, there could still be a problem. HMOs think that they have no data as to whether the risk of missing trend or estimating cost is affected by the real assets that they own. They think integrated facilities produce the more stable result. But we are now seeing changes in utilization patterns, possibly causing redundancy in hospital facilities, which could cause a number of problems.

Another small problem we have in the HMO industry is that they're not necessarily regulated by insurance departments. The NAIC relates to insurance departments or the equivalent in each state. But in California, HMOs are regulated by the Department of Corporations. In Minnesota, they're regulated by the Department of Health, with some reference to the Department of Commerce. How important that is, it's hard to say. So we also have theoretical problems with regulatory jurisdiction, which haven't been addressed, that I know of.

The next item is the question of the 9% RV. The commissioners will set the 9%. But it would appear that the HMOs would have a sizable increase in RBC from their existing formula. The HMOs were most vociferous in questioning the need for more increased RBC for states with prior rate approval. It's much more common for HMOs to have to file rates than it is for group carriers that typically don't have to file rates for large groups. For small-group rates or individual coverage, most carriers have to file rates. HMOs think that the loading is unnecessary or excessive. Bill explained that part of the problem is using a single RBC factor for individual and group. An individual product requires much more filing and delay in approval. Perhaps we could revert to the current formula, which has different sets of factors for individual versus group, which would get you over the question of prior approval on most group rates.

The HMOs argue that they tend to be only in one state or metro area at a time, whereas carriers tend to be national with licenses in each state. Therefore, the NAIC also has no database on HMOs because it very seldom gets a report. At least it doesn't record it in its computer if it gets it. The HMOs have figured out how to live with rate regulations where they exist and they think that shouldn't be used to penalize or require an increase of about 50% in RBC above the basic factor.

Although business is becoming more complex, many smaller HMOs are plain vanilla and only have one line of business. They may not have a problem because they don't have to break out lines of business. But the more complex HMOs have a real problem—as do some of the health carriers—in splitting the categories of business for varying levels of managed care credits. In the HMOs, it's not so much LTD or some other lines of business; it's the various methods of getting credits against the RBC for their managed care—capitations and subcapitations, withholds, and other items. They may do all these in the same line of business, and they have a difficult time splitting the claims out by the risk arrangement used in paying a certain set of providers. HMOs are looking at trying to rework the credits in such a way that they fit better, but I don't think, with the exception of

fixed fees, that they think the credits are adequate. HMOs are trying to make the rules fit the way they do business. Of course, now there are 600 or 700 HMOs around the country and every one of them operates differently with different kinds of contracts. So it's very hard to categorize them and split their premiums.

Another point, which would be one of these issues that Bill mentioned, too, is that many of the integrated HMOs, and particularly where they're regulated by health departments, use GAAP accounting, with the result that they have many receivables and payables that normally are not reflected in statutory statements. Now, one of the things we're trying to do with the 125 HMOs is look at how important these elements are. For example, they may have Medicare enrollment and the government may owe them money, which is a receivable. But if they were following statutory accounting, not all of that receivable would be countable as an admitted asset. For some HMOs with contracts on hundreds of thousands of insureds on Medicare, it might be a significant number.

And there are a certain number of other items, such as copayments, which the insurance company tends to subtract from the amount it pays the provider. HMOs sometimes pay the provider a capitation with the agreement that the provider is to collect the copayments from the patients when they walk into the clinic. Some integrated HMOs collect copayments directly. Under statutory rules, copayments due wouldn't be a legitimate receivable. It should be an acceptable receivable under a GAAP approach.

An important change involves consolidated reporting. Bill mentioned that just briefly. HMOs are firmly behind the fact that everybody should move RBC upstream. If HMOs are in a holding company, they all should build up the capital in the holding company based on the type of capital requirement, not move up the net worth of a subsidiary, as an investment. We have problems in the HMO industry, and occasionally with the Blues, because many HMOs are not-for-profit.

Some HMOs involve multiple 501(c)(3) or 501(c)(4) organizations, which are not legal affiliates. It is for the NAIC to decide how to regulate these combined entities that may be controlled by a common board of directors.

Reinsurance is important. HMOs don't have any question about the specific reinsurance that is built into the formula. They get a reduction in capital requirements for true reinsurance, where the reinsurance carrier meets the 200% level of RBC. There has to be a true transfer of risk on a reinsurance transaction, which is sometimes hard to figure out. The other thing that's included here, which is typical among carriers, is quota-share reinsurance which can be used as surplus relief. By and large, the HMOs' state statutes, as well as the federal statutes, don't permit quota-share reinsurance. We think the rules need to be changed to relieve surplus strain, possibly in large HMOs. But typically, HMOs only buy catastrophic types of reinsurance (stop-loss coverage).

HMOs don't believe they should be subject to a guaranty fund. Their current capital requirements are low, based on the fact that they have hold-harmless agreements with providers. Some states have requirements that even providers without a contract are subject to the hold-harmless agreement anyway if they provide services to members. I think this is a dying gasp for HMOs because commissioners don't know anything other

HEALTH RBC: PRICING AND FINANCIAL IMPLICATIONS

than guaranty funds to bail out insolvencies. Essentially, they're bailing out the providers. I think the commissioners really don't want any HMO to become insolvent.

There are a few final items. The new formula does not really vary the major medical RBC factor—the 9%—by size, and there's still some feeling that there ought to be a break by size. The study shows that once carriers get beyond a certain size, with a possible minimum amount of capital, the risk doesn't seem to change very much. HMOs now have millions of people covered, and there is no data showing whether that's a higher risk. There's always the assumption that the bigger you are, when talking about trend and the risk of premium being adequate, it's probably affected more by marketing conditions than by statistical fluctuations or misguessing what the cost is. But the HMOs are still likely to prefer the old formula that they had; if they are larger they get a reduction in the RBC C-2 factors.

Certification of liability estimates by an actuary is a requirement to avoid a large increase in capital for health organizations, which is not necessarily the intent. The intent is to distinguish between high-risk ventures that are likely to go insolvent and those that are sound. There wasn't any intent to raise capital levels, but we're dealing with four different industries with varying capital requirements and different methods of doing business. It's very difficult to come up with something that fits everybody exactly.

Capital requirement changes have happened about every five years in the HMO industry, going back to 1973. States have allowed a three- or four-year phase-in. Essentially, all HMOs were not-for-profit up until 1980. The only way a not-for-profit can increase capital is to raise rates higher than cost and build up surplus over a period of years. So to avoid excessive rate increases, most states granted a three- or four-year period of phasing into the higher capital requirements. Minnesota has about the highest requirement, and the proposed RBC formula would produce a decrease.

There are a few additional items that relate particularly to the HMO industry. One is the necessity to measure short-term cash flow, which differs between insurers and integrated HMOs. For totally capitated HMOs there is very short cash flow because the payments are, in fact, on an accrual basis. Liquidity measurements may indicate that these HMOs are short of capital. Kaiser, one of the largest HMOs, immediately invests all of its excess cash in facilities to minimize interest or mortgage requirements. It keeps cash at an absolute minimum and could borrow on its credit to cover a short-term problem, if necessary. The large carriers have proposed a standard for short-term liquidity, which could cause some problems of increasing cash reserves for HMOs.

Another item that has come up for discussion during the task force meetings is the question of "invading the capitation." Many HMOs capitate almost a total risk to either a medical group or a hospital, which may in turn reimburse other providers. Most statutes do not permit regulation of medical groups, IPAs, or hospitals. We reached agreement that if the HMO capitates total risk to a medical group, it should still maintain the RBC on the hospital portion of the capitation. We have indicated that minor referrals out of a medical group of less than 5% of aggregate cost need not disturb the full managed care credit for this model. The question of what to do with physician hospital organizations (PHOs) has arisen but has not yet been discussed adequately to solve. PHOs that market to customers

themselves would be regulated as HMOs in most cases, but what if they accept a capitation from a licensed HMO?

An interesting anecdote is about an HMO owned by a hospital system. Each December it estimated how much capital the state required and transferred a check to the HMO, which it then counted as an asset in its annual statement. Every January 1 the HMO wrote a similar check back to the hospital, effectively removing its capital. So the HMO was solvent but didn't really have any money, except for one or two days a year. I presume it could have borrowed it again if it ran short of cash—but I don't know! These relationships can cause all kinds of games to be played, and we do need open exposure and adequate risk coverage.

The NAIC's general position is that it wants a right to regulate any risk-bearing entity. We haven't really defined exactly what kind of entities could accept a capitation—and for what services. I think we still have some work to do. I hope that regulations will not be so cumbersome that they work to destroy the freely negotiated financial arrangements that seem to generally have worked up to now.

That summarizes the concerns of the HMO industry. We're trying to get back to the commissioners at least before their fall meeting with data from a large number of HMOs, particularly small ones that haven't been involved in the RBC development process to find out whether they would meet the requirements or be short of capital. As Bill pointed out, the LTD and DI carriers were upset at the increased capital requirements and produced data to show that the first proposal seemed excessive. HMOs have some of the same concerns—that the capital requirements produced are much higher than they need. There is also some concern that even a few large HMOs may be short of the capital requirements.

MR. WILLIAM F. BLUHM: Harry, I thought it might be worthwhile to maybe provide a little bit more of the background for everybody as to what the process was that the group went through in coming to some of the decisions that you were talking about.

It should probably be told that 72 people were on the task force, including quite a few representatives of the HMO industry. The results weren't decided in the back room. And many issues that you have mentioned were brought up by you, as the representative of GHAA, and by other HMO people, and they were discussed at extensive length. And a number of decisions were made by the group as a consensus in response to those. I just think it's important to not leave the impression that these issues were not fairly discussed.

MR. SUTTON: Many things were discussed, as Bill said. At the meetings the group thought the committee had to make a decision on a consensus as to what the final results would be. We still don't know, with the 9% factor, exactly what the capital requirements will look like for HMOs.

FROM THE FLOOR: You mentioned the prior-approval increase in RBC that the HMO industry doesn't think should apply to it. As you recall, we did spend a fair amount of time trying to craft some wording that would be acceptable to the HMO industry.

HEALTH RBC: PRICING AND FINANCIAL IMPLICATIONS

MR. SUTTON: Right. The final RBC factor was reduced if the HMO had a right to inflate rates or file rates for 18 months.

FROM THE FLOOR: There is just one other item that I want to comment on, which is *your comment about the Academy or the task force backing out of the issue of capitation and transfer of risk*. I don't think that was the case. We did discuss it at length and concluded that the need for capital should arise from the promises being made to the insured public, and that promise is being made by the insurer or the HMO and so, therefore, that's where the obligation for the capital to back up that promise should reside.

MR. SUTTON: That's true. Two areas caused concern. One was if the medical group capitation included the hospital cost, and the doctors don't own it. I'm not sure how clear it is in the current rule, but the RBC is supposed to stay with the HMO.

The other problem was that regardless of how large the medical group is, there's still some small number of referrals required. We came up with a rule that if it was less than 5% of the total, it could be disregarded as affecting RBC. But we didn't really settle how we would readjust RBC if referrals exceed 5%. Certainly, there were many discussions.

The committee was concerned about the level of risk and about consistent capital requirements for PHOs or other independent organizations taking risk. It's part of the NAIC's problem to determine who is taking that risk, and it hasn't done that. The states have a long way to go to define what type of organizations they want to regulate, and, of course, some organizations contract with any number of specialty providers or single-service HMOs. It's difficult to sort out all the pieces.

MR. WELLER: You have another part of the moving marketplace in that there are many bills in Congress that would allow for groups to form purchasing pools, which would be outside the regulation of the NAIC. So the NAIC is very concerned with what organizations they regulate and what they end up not being able to regulate that's able to do much of the same business. The NAIC recognizes that when people can't get their health insurance claim paid, for whatever reason, they might think they have insurance and that's why they call the insurance department. And the insurance department gets this call and if it's from an insurance company, it is regulated. If it's from a self-funded plan, it is not able to regulate the plan. But that is not easy to explain to the irate person on the other end of the line. "We're sorry, yes, you have a certificate that says you have insurance, but the insurance department regulates that part of the insurance."

And the NAIC, as well as much of the industry, is very concerned that as you allow purchasing pools—the whole aspect of what the solvency protection is, and who will do the regulation of it, and how effective it will likely be in its regulation are very significant questions for the industry as well as the regulators. And I think that the NAIC would very much appreciate any actuarial assistance that it can get in looking at this.

