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Summary: The panel discusses the role of the valuation actuary in health insurance. The focus of the session is scenario testing in health insurance and how this is a tool in assessing the risks of the company. Statutory minimums and statements of opinion are discussed.

Mr. Ed Butler: I'm a member of the Health Financial Issues Joint Committee of the Society and Academy, which sponsored this session. A little bit of a change has happened. When we first put together the session, I was thinking we'd talk about scenario testing, things that are done in health insurance. When the three of us finally got together, we decided we would rather talk about problems that we have in issuing opinions and different things that make our heads turn.

I would like to compare the role of the valuation actuary in this country and other countries, and also compare what's done for life, property and casualty, and health insurance actuarial opinions. After I'm done, Jerry Lusk, from Milliman & Robertson will spend a little bit of time going over the standard actuarial opinion and highlight a couple of problems he has faced. Our third speaker is Don Martineau from Deloitte & Touche. He has also seen a few problems and situations that he just wonders about when he sees them and questions whether they are adequately handled.

When we give an opinion, it's split into several sections. There's a section where we say that we're a member of the Academy. There's a scope section where we say what we're issuing an opinion on. The real meat of the opinion comes down to five statements we attest to. The first one says that the reserves have been calculated according to presently accepted actuarial standards. This really means that we've just complied with most of the things in the actuarial standards. There's a list of those that are appropriate for health insurance, and these are outlined in Actuarial Standards of Practice (ASP). The second attests that the reserves are in accordance with contract provisions, and I think that has much more to do with life insurance than it does health. Third, we state we have met the statutory requirements or minimums, and that's based on all regulatory minimums. Jerry is going to talk about the last two, which state that reserves are calculated on the same basis as last year and that they include a provision for all reserves that ought to be included, essentially the good and sufficient requirement.

The U.S. is not the only place where actuarial opinions are issued and is certainly not the place where the strongest opinions are issued. I do not know which country required the first opinions. I did some research and found that Canadian actuaries do an opinion very similar to what's done in English companies. Both of those opinions are far stronger opinions than those issued in the U.S.

Canada has legislatively required insurance companies to appoint an actuary. Appointed actuaries issue several opinions. They issue an opinion that the reserves are fairly stated, and this really relates much more to the concept that they're not being used to change the profit level of the company. It doesn't really apply to being good and sufficient so much as it does to the profits. Appointed actuaries put together a report that backs that up and includes all assumptions and formulas used, and I'm told that's far longer than most of the things that we do.

If this were not strong enough and did not contain enough detail, appointed actuaries also must issue an opinion that deals with the vitality of the company. This flows out of the dynamic solvency adequacy testing that they are required to do, and this is where they test approximately 20 or more scenarios, where they vary not only the interest rate scenarios, but also the mortality, disability rates, completion factors—numerous things that just don't happen here. The basic procedure is not so different from asset/liability testing done in this country as part of a section 8 opinion. They start with the current surplus, run it out through these scenarios, and at the end of ten years, if there's not enough surplus as determined by their regulatory agency, then they have to put together a plan to correct this problem and generate more surplus over those years. This plan is somewhat sensitive and up to now has not been a public document. It's issued just to the regulator and to the

company's board of directors. There is some concern for a breach of confidentiality because these plans will eventually become public documents.

There are several reasons why I say that these are pretty strong opinions. First, an opinion is issued where reserves are tied to earnings. Second, the reserves are tested in different scenarios to see how adequate they are in volatile environments. This is related to the adequacy of surplus. The only problem in terms of health insurance is that in Canada there isn't much health insurance that's privately sold. I'd be curious to know what they would do for companies that have HMOs, indemnity plans, etc.

England is worth mentioning because of the relationship between the regulator and the company. In England, appointed actuaries are required to issue similar opinions, and if their company does not act on them, they are required to notify the insurance and banking regulator.

None of this is to say that nothing is done in the U.S. Certainly the life valuation includes a great deal of cash-flow testing, and this grew out of the New York 126 regulations which started with seven scenarios, and has grown from that. The life actuary, because of the length of the contract and the dependence on investment returns, must model both assets and liabilities. There are tests for how assets match the liabilities and strategies for what to do in periods where assets and liabilities are out of sync. The other strong point is that there is some measure of how the assets are adequate for the liabilities they're backing.

However, all of this is much stronger than what we do in health insurance. I know there are actuaries who do look at different scenarios for health, but that is not the norm as far as I know. If scenarios are tested, it is not in relation to health but more in relation to disability. Like life, they look at different interest scenarios.

Property and casualty actuaries also issue an actuarial opinion. It's much more like the opinion that's done for health insurance. It's a Section 7 opinion. The difference between a Section 7 and a Section 8 opinion is that a Section 8 opinion states that cash-flow testing has been done. For companies that are small or have no annuity business there is no requirement to do cash-flow testing. This would apply to most accident and health insurers in this country.

I work for the Blue Cross/Blue Shield Association and regularly review what is done at several of the plans. Most of the plans I deal with are too small and have no annuity business. So they're not required to do any cash-flow testing. They are not required to do asset/liability testing. They do a Section 7 opinion, which doesn't require that. It's essentially a testament. The actuary attests to five statements

mentioned earlier. To me, what's most important is that they're good and sufficient reserves. While there are some rare companies that do test different scenarios, they are truly the exceptions.

Now, just to go through weaknesses that I see in the current practice sort of quickly. There are no asset tests. We can calculate liabilities as well as we possibly can, and we can be perfectly accurate. However, if the assets backing them fail, it's not going to work. This really hasn't been an issue with health insolvencies in the past, but I think as we look forward and we see how more companies are getting into integrated delivery contracts and including these as assets in the books this could become an issue. Also, some companies include in their assets those used to provide care, which are valued in many different ways. Who can speak to the value of a hospital that is not adequately utilized? Who knows whether that's going to be a problem? Also, there's really no test over any sort of time frame to see that the surplus is adequate. There has been some work done in the *Dynamic Financial Condition Analysis Handbook* and some talk of testing scenarios, but very little is actually done. Actuaries I talk to do not test changes in benefit levels. They do not try to quantify what would happen if the largest provider canceled their contract. They do not look at what could go wrong. Most people, I'm sure, know problems that can happen, but I don't think anyone really goes out and quantifies them to any great extent.

Another problem relates to the idea of being your customer or provider exercising their options against you. What I am thinking about are changes in benefits that we have no control over. In the last year, we've seen a great deal of news articles about patients not being happy that their autologous bone marrow transplant wasn't covered. Certainly care for more long-term diseases, AIDS, and cancer is getting more and more expensive. While we've tried to control benefits in the past and have assorted levels of reviews of utilization, there's more and more—mandating of benefits. We have less control over that. I guess the typical one is the two-day stay for a hospital delivery.

A final problem that I see is the difference between where the risk lies. As more and more risk is passed to provider organizations, less of an actuarial opinion is often done. We know of the different regulatory environment for HMOs and other delivery mechanisms, and I look at it in two ways: (1) Are the provider organizations less secure? (2) Are the insurance companies being required to do something that's making them uncompetitive? This doesn't have much of an effect in terms of an actuarial opinion, but it's just one more little difference that exists between the two organizations. Even if there is no advantage in the lack of an opinion, there are definite advantages in avoiding surplus requirements. Don will address this in more

detail; he will talk about what happens when liabilities are shifted to HMOs. How do you adequately cover that?

There is one final point I want to address, and that is the audience for the opinion. The three of us decided you really have to spend a little bit of time and think about who the audience is for your actuarial opinions. Who's the customer, and what is this going to be used for?

Clearly, the insurance company that's hired you to do the opinion is one of your customers, and the company gets some security in knowing that someone at least believes the reserves are adequate. The state regulators insist that an opinion be given and that it show that this company is going to be around for a year. The auditors will accept your opinion and essentially just defer to what you say. The third group is one that Jerry's going to talk about, and that's investors in stock companies who will be interested in your opinions of both the reserve levels and the margins that are held. The fifth group is the policyholders who are interested that the reserves are adequate in terms of having secure benefit.

Mr. Jerry E. Lusk: I will pick up where Ed left off, talking about the basics of what is in an opinion, and call your attention to four of the ASPs. Numbers 5, 7, and 14 are pretty much the driving force for what we should consider when we do an opinion for a health company.

ASP 4 provides the primary guidelines for what an appointed health actuary should do. It talks about the NAIC model regulation and outlines all of the specifics we should be following. This is clearly the guideline that you should read first and be very familiar with before you complete an opinion statement.

ASP 5 gets into the methodology of reserving practices, including how to handle loss adjustment expenses. It also lists what you should consider when completing a reserve analysis and preparing an opinion.

The last two guidelines, ASPs 7 and 14, deal with cash-flow testing. ASP 14 is the more important of these two standards since it provides the primary cash-flow analysis guidelines for life and health companies. As Ed mentioned, however, by and large health actuaries do not get too excited about cash-flow testing when completing reserve opinions for health companies, due to the relatively current nature of the liabilities and the relatively liquid position of most of the assets. Nevertheless, it is an important consideration and is something we do reference in the opinion statement. I have been involved in at least one situation where, because we did not complete cash-flow testing, the regulators attempted to make a significant deal out of it. We clearly had to demonstrate why it was not done and

concede that in the future we would do limited cash-flow testing even though in reality it was not a significant issue for our client.

The most current version of the NAIC model regulation was released in 1991. Since many of the state insurance departments model their laws after the NAIC model, it is clearly something that you should be familiar with. Ed mentioned Section 7 as the section that outlines the content of an opinion. There are some differences between the 1991 release and the pre-1991 release in the areas of good and sufficient statements and a couple of other items. These are discussed in ASP 4 and I suggest they should be reviewed for general reference.

The next key items to consider are the various state regulations and the Standard Valuation Law (SVL). The state regulations should be reviewed in detail to assure that local compliance requirements are met. While some states pick up all or major portions of the NAIC model regulations verbatim, other states do not. Also, changes to the local regulations can occur from time to time. The SVL is directed primarily at life companies, even though there are references to group life and health companies. Since most health actuaries do not get involved in life company actuarial certifications or, if we do, we involve the life actuaries directly, familiarity with the more refined aspects of the SVL is a lower priority.

I would like to run through an opinion here for you quickly. While this is not intended to be a class on actuarial opinion statements, I thought it would be helpful to review the structure of an opinion statement and point out some of the areas where you may want to think twice about the statements that are included.

In the basic structure of an opinion statement, the introduction should indicate "who you are" and highlight your qualifications. You need to be a member of the AAA and maintain your continuing education credits. This is an important consideration and is often checked in situations where the validity of an opinion is questioned.

The next statement identifies the organization you are working for. Of course, in my case and in this example, I would be a consulting actuary for a particular company. The valuation date for the liability calculations is next and completes the key items included in the introduction.

Next, we list the items included in the review. These are the specific items that would appear on the filed insurance department financial statement. The key here, and it's something we often have trouble with, is the reconciliation between the reserve calculations and the amounts actually appearing in the financial statements. Due to adjustments made in the final accounting process, the reconciliation

calculations may be somewhat complicated. Use of the general ledger should, however, provide most of the needed detail to support these calculations. Keep in mind that the accountants can get very creative in how they book certain liabilities and apply adjustments.

The next key area to discuss is "data reliance." Normally, we rely on the data provided by our client, typically through either the financial or the actuarial area. In this regard, we require our clients to certify to us the integrity and accuracy of the data. Having been an internal actuary at a company in the past, I was responsible for both the data integrity and the reserve certification themselves. This can be a difficult position to be in due to the challenge in verifying the accuracy of data in our environment today. The important consideration here, either from an internal or external audit perspective, is to complete a lot of reasonableness tests. It is especially important to reconcile reserving data back to the actual payment records. It is equally important to reconcile membership records and claims inventory data back to core data sources.

The "confirmation statement," as I refer to it, basically says we're conforming to the NAIC model regulations and the ASP. We also point out in the statement that we realize the actual results are likely to be different than the calculated results.

The "opinion statement" itself is where we get into the key areas of the review. The first part of it notes that the reserves have been computed in accordance with commonly accepted actuarial standards, etc., and are consistently applied. While these statements may sound tame in nature, they can be difficult to deal with when procedures change, mergers occur, or there are some changes in overall corporate strategies. It is not unusual for accountants to get very creative in how they establish or book certain corporate liabilities. In this regard, it is important to obtain and review a copy of the general ledger. The key here is to verify the booked liabilities, identify procedural changes in accounting procedures that could have material impact on liability estimates, and identify all of the liability.

Next the opinion statement notes that the liabilities are based on "Actuarial assumptions which produce reserves at least as great as those called for in any of the policy or contracts that the company has." This statement highlights the need to understand what the liabilities are for and suggests the need to review and be familiar with all of the contracts. You should review the contracts that apply to: (1) the members, (2) the providers, and (3) the employers. It is not unusual, during a first-time reserve review, to uncover a major glitch that has been overlooked in the past.

The liability calculations and results should meet "the requirements of the state," highlighting again the need to be familiar with the laws and specific requirements of that state.

The liabilities are "based on actuarial assumptions as to future contingencies which are deemed to be reasonable and appropriate under the circumstances and make good and sufficient provision in the aggregate for all unpaid claim liabilities." We will come back to this statement in a minute because the "good and sufficient" provisions are really something that a lot of people struggle with. This next part should state that the reserves "are computed on the basis of assumptions consistent with those in computing the corresponding items in the previous year." Again, the consistency statement is something we will come back to.

Next, the statement notes that the reserves "include provisions for all related actuarial items which ought to be established." This provision involves another judgment call to decide what should or should not be included. As I previously suggested, many of our clients do not set up separate liabilities for loss recovery expenses. Should they or shouldn't they? The standard says you just have to be comfortable that there is adequate provision for loss recovery expenses in the total reserve that's booked. So if the booked liabilities for other categories include hefty margins, you can perhaps ignore the 4–5% that might be associated with loss recovery expenses.

Some potential liabilities (for example, the implied/legal liabilities under various capitation arrangements where possible insolvency of a provider group could shift a liability back to the insurer) could be very significant or never occur. Again, these become judgmental in nature and should consider the overall level of margin in the booked liabilities to determine if some additional liability should be considered.

Closing out the opinion statement, it is important to highlight the items that are not included in your opinion. One area we have already touched on a couple of times today is that, normally, you do not need to establish liabilities for third parties. In this case, we are talking about the capitation-type arrangements that an HMO or some indemnity companies may have with larger provider groups. Effectively, you are "shifting" liability to a third party. In reality, however, your policies—and the insurance department—will still hold your company responsible for those liabilities. In the event that the provider group becomes insolvent or for some reason decides not to render the services that are necessary, you, or your company, become liable for the costs associated with these services. While it is not uncommon to book a liability for the "potential" insolvency or nonpayment, the records and data to support this type of liability are generally not readily available. As a result, this often falls into the "excluded" items category and reference.

In some instances, when a company does hold a reserve to recognize the potential insolvency of these providers, it is doing so as a generally conservative measure and may, in certain instances, be doing so to reduce overall earnings. If this is the case, it is important to take it into consideration when assessing the overall, potential reserve margin. If this margin is excessive or has changed materially from a prior reserving period, some reference to this may be needed in your opinion statement. The key, and what I would refer to as the caution, involves situations when a company decides that a liability of this nature really was not something they were all that concerned with and maybe it does not need to be recognized as a liability. This, effectively, becomes a release of "margin" and could be a boost in current earnings.

Some additional considerations include something that seems to be happening with everyone in our industry—mergers and/or acquisitions. When this occurs, two or more somewhat similar blocks of business are merged. Oftentimes, very different techniques in reserving practices are being used for the respective companies. So whenever a merger has occurred during the year, these differences in reserving practices need to be addressed and referenced in your opinion statement. One-time accounting adjustments should be reviewed closely to determine possible impact on the stated liabilities and reported earnings.

The last two items deal with cash-flow testing. Basically, and in most cases, we assure ourselves that cash-flow testing is not necessary. In a couple of states where it is required, we do perform some limited testing, but normally we will just make a statement that says something to the effect that we do not feel cash-flow testing is needed due to the relatively current nature of investments.

Backing up to the key issues, the good and sufficient statement is the first issue to consider, and the first question I would ask is what is sufficient in a reserve? Actuaries tend to deal with averages. You know the old story—I shot over here, and he shot over there, and together we killed the deer. We like to deal with best estimates on things like reserves. Now, by the nature of a best estimate, that means half the time I'm going to be right, and half the time I'm going to be wrong. In some respects that's probably a little overstated because we normally lean to the side of conservatism. So when we call something a best estimate, it probably means 60% of the time we will be correct and 40% of the time we will be wrong.

On this basis, should the best estimate be considered as a "sufficient" estimate of the liability? Unfortunately, there is not a good definition, in most instances, of sufficiency. This is where the margin aspects of the reserving process come into consideration. Normally, what I suggest and feel comfortable with is to determine a best estimate and a corresponding reasonable low value and a corresponding

reasonable high value. As long as the booked liability is within the higher end of the range, I have some comfort that it can be considered as sufficient. As a rule of thumb, something like a 5% explicit margin or a 5% margin above the best estimate is when most people begin to have a good comfort level with the sufficiency statement.

Of course, if there is a 20%, 30%, or 40% margin, you would consider the liability estimates to be very sufficient. This, however, leads to the next question. What is "good"? While the "good and sufficient" statement tends to combine the reference points, I think they really have two very different meanings. A liability, for example, including a 5% explicit margin, could be adequate (that is, greater than or equal to the actual liability) 70–80% of the time and be considered sufficient by most actuaries. Booked liabilities that include significantly greater margins can begin, in my opinion, to test whether estimates can be considered as "good." Clearly, margins can begin to become excessive at some point. This point is, however, often debated among actuaries. There are some actuaries, for example, who feel good and sufficient means "no matter what," the reserves are going to be adequate. I have seen people take great pride because they never had been low on a reserve estimate. Now, would you consider this attitude or approach to be appropriate? While I cannot say that it is inappropriate, I am not sure this is what I would advise in most environments today.

Traditionally, reserving has not been a big issue for most commercial companies. Why would this be the case? Well, health has not traditionally been a major share of a large company's total book of business, and reserves have generally had such extensive margins that they have never really been a factor. But when it is only a health company, and with the consideration that many companies are converting from not-for-profit to profit-making entities (for example, Blue Cross/Blue Shield Plans and HMOs), margins can become highly contested issues. So, the "good" provision begins to be a testy issue to deal with and is something you have to be comfortable with in your own environment and, possibly, be willing to defend when questioned by an outside party.

The consistency statement ties directly into all of this. If, for example, the liability estimates include a 30% margin, but the 30% has been an explicit margin every year on top of a defined best estimate, the sufficiency test would be satisfied without question. In most instances, the good test would also be satisfied based on the consistency in the application of the margin strategy.

The key here is to determine what procedures or strategies have changed during the past year or reserving period. This is often where an actuary can begin to throw up some red flags. In this regard, it is very important to look for (1) changes in levels of

explicit margins, (2) the addition of new liability categories, (3) the removal of liability, (4) changes in definitions of liability categories, and so on. If any of these changes result in a distortion to current earnings, you may need to disclose the changes in your statement.

So we get into this next area of public versus private companies, and having grown up with basically public-type companies, I have done a lot of Blue Cross and HMO work over the years. For the most part, these companies have been defined as "not-for-profit." At the present time, however, many of these companies have or are in the process of converting to public, for-profit companies. With these conversions, the companies now have new investors and stockholders to deal with. On the legal side, I do not believe there are really any significant differences between how you should approach a reserve review or develop your opinion. I think the same basic guidelines should be followed. From a practical basis, though, I think the focus on margins becomes much more keen because of the direct impact on the bottom line financial results. Increasing margins means taking dollars from the bottom line. Decreasing margins means releasing dollars to the bottom line and improving reported earnings.

I have put together two very simple examples for, basically, hypothetical companies. Although I did take the numbers from one of the Sherlock Company publications (*PULSE*) where they track the financial value of specific companies, they are modified to disguise the actual companies.

This first company (Table 1) is a very large HMO, with over $3 billion in premiums. About half of their claims costs is capitated. They expect to make $81 million in profit during the upcoming year. This is approximately 3% and would be considered on the low side for an HMO in 1995. At 58 million shares, the after-tax profit margin converts to $1.40 expected earnings per share. This is a very key statistic because of its potential impact on the stock price of the company. A few cents off on expected earnings per share can send a company stock dropping 10–20% in one day. So these become very critical factors.

If we break down the total costs in the example, the claims piece would be split into half capitated and half fee-for-service. On the fee-for-service piece, I backed into the portion of that which would be the claim reserve and have assumed a margin of 20%. If the margin was 20%, that would be $72 million and would be equivalent to $1.25 in terms of earnings per share before tax and $0.75 on an after-tax basis. Keep in mind that the expected earnings per share for the year was $1.40. So the reserve margin is a relatively large proportion of the total expected earnings. For illustration purposes, I said let's assume that the margin drops to 10%. From a good and sufficient perspective, certainly from sufficiency, most of us would be very

happy if somebody did a decent job on a best estimate and added a 10% margin to it. On that basis, the after-tax earnings per share equivalency would drop to $0.375. The difference of $0.375 would be equivalent to 26.7% of the earnings per share and, again, a relatively large portion of the expected earnings. Clearly, this could be of interest to management if actual earnings levels begin to slip.

TABLE 1
HYPOTHETICAL EXAMPLES OF HMO EARNINGS—COMPANY A

Annual Premium	$ 3,440,000,000
Medical Claims	$2,889,600,000
Capitation	50%
Expected Income	$ 81,200,000
Number of Shares	58,000,000
Expected Earnings Per Share	$ 1.40
Capitated Claims	$ 1,444,800,000
FFS Claims	$ 1,444,800,000
Claims Reserve	$ 361,200,000
Margin at 20%	$ 72,240,000
EPS	$ 1.25
After Tax	$ 0.75
Margin at 10%	$36,120,000
EPS	$0.62
After Tax	$0.37
Expected EPS	26.7%

As another example, I have chosen a somewhat smaller company (Table 2) with roughly $400 million of expected revenue, 35% of their business capitated, a much higher but probably more typical after-tax expected income of almost 10%, or $2.20 on an earnings-per-share basis. This example, following the same calculation procedure as for the previous example, results in about a 7.7% difference in earnings per share. While this may not sound like a lot, a difference in expected earnings per share of $174 could have a dramatic impact on a company's stock price.

TABLE 2
HYPOTHETICAL EXAMPLES OF HMO EARNINGS—COMPANY B

Annual Premium	$ 392,000,000
Medical Claims	$ 295,176,000
Capitation	35%
Expected Income	$ 37,400,000
Number of Shares	17,000,000
Expected EPS	$ 2.20
Capitated Claims	$ 103,311,600
FFS Claims	$ 191,864,400
Claims Reserve	$ 47,966,100
Margin at 20%	$ 9,593,220
EPS	$ 0.56
After Tax	$ 0.34
Margin at 10%	$ 4,796,610
EPS	$ 0.28
After Tax	$ 0.17
Expected EPS	7.7%

Should we be concerned about these types of issues? I think we need to be at least aware of them and be cautious with what we say in our opinion statements. How you deal with specific situations will vary considerably. I am sure none of us have all the answers.

So we get back to margins. What's good and sufficient? What is considered to be a material change, and what are appropriate methods for releasing margins? I think this is where we need to do some modeling and make some determination of what would be considered significant. Normally we are trying to work with two- or three-year projection models that spread the impact of releasing a significant margin over a reasonable time frame. This type of modeling can be used to demonstrate to management and to the regulators the impact of all this. In this regard, it is especially important for the actuary to restate the financial results to appropriately track the financial direction of the company.

So the last area I will touch on is disclosure. Since this was also the last area that Ed touched on, I guess we both think this is an important area.

As I previously mentioned, it is important that management have a clear understanding of what is going on with the company. This is where the restated results become an important part of the total financial reporting package. For the insurance department, the regulators need to know if there are some problems that they should be alerted to. This, of course, is why they ask us to do these opinions in the first place. They want some assurance that the numbers that are being filed are appropriate and are an accurate reflection of the financial viability of the company.

The other parties we have briefly touched on and have some vested interest include the stockholders and the IRS. Distorted earnings results can have an impact on the implied values of companies and on what investors/stockholders are willing to pay for the company. The IRS is, as would be expected, always looking for situations that may have distorted the timing or accuracy of tax payments.

Last, but not least, for anybody who deals with Blue Cross plans, the Blue Cross Association does require an independent actuarial appraisal or actuarial certification of the liabilities on a periodic basis. This, essentially, involves an independent statement to the association that is in addition to any requirements of the state.

Mr. Donald J. Martineau: I would like to cover a couple of practical situations. The first part of this presentation highlighted state requirements, and Jerry has focused on other audiences where our analysis has implications: stockholders, management, and others.

Working for an auditing firm as I am, I have to be particularly mindful of our audiences in my day-to-day work. I prepare actuarial certifications for annual statement reporting, and in that role I bear a professional responsibility independent from that of the firm. But I also function as part of an auditing firm, and I perform reviews as part of an audit team. I rely on accountants to validate data I use, but otherwise I have a professional actuarial responsibility to my firm, and the firm represents my audience for those services. Through that audience, I have access to management, and that often includes other actuaries.

In this session, I would like to address some practical problems that I have encountered. Change has been mentioned frequently. When we estimate or review a reserve, sometimes from month to month, change is what makes the estimate difficult.

For example, if you use a triangulation where someone else has verified the basic data, and where you can rely on this verification as indicated by Jerry and according to the NAIC, you may find that your client has changed the reserve system, or

changed the processing system or the backlog has grown. This probably never happens to you, but it happens to me all the time. All of a sudden, triangulation results are impossible to read. Change. You then have to make a decision. As good as the actuarial methodologies are, it becomes a question of interpretation and of opinion. Other types of changes: changes of plans, changes in grouping of benefits, new products, and so on. All these changes affect my work and your work, and there is no easy answer for interpreting those changes.

If you work within an insurance company, HMO, or Blue Cross Plan, you have a good knowledge of your own business. If you function as a consultant or as an independent actuary as I do, you may see your client once a month, or sometimes less frequently. Perhaps only once a year, as often happens. Then it is more difficult to keep up your knowledge of that particular client's business. Then you have to be inquisitive, and I believe you need face time. I strongly believe in face time. Costs and expenses are always a factor and a source of resistance, but as responsible actuaries, we sometimes need to insist because changes happen, and you need an opportunity to identify all the changes that happened to your client and the impact of those changes on your work. Usually in performing your work, you can detect the occurrence of changes, but only client contact will clearly identify those changes.

I would like to return to the two issues I mentioned earlier. The first of those issues relates to capitated services. In simple terms, an HMO accepts capitation and is responsible to provide certain services to its members.

In turn, the HMO may contract with certain providers to provide some or all these services for an agreed capitation rate. Using life insurance as a comparison, this may be viewed as reinsurance where under NAIC and accounting guidelines, gross amounts, and reinsured amounts are required to be shown separately. This has not been the practice with HMO liabilities where capitated services with providers are usually not reserved for. In some instances, the detail of the provider services is not available. In particular, there are instances where providers accept risk and capitation for service areas which they do not themselves provide. They bear the utilization risk, and if the capitation rate is too low, there may be money due to the HMO. Also, there may be a contingent liability to the HMO. In some instances, those amounts due to the HMO have been netted out against the reserves. Proper accounting depends on the contractual terms of the agreements. The amounts due to the HMO could be either a receivable—on the asset side of the balance sheet—or an offset to reserves, similar to a reinsured business reserve.

This is a fairly frequent situation, and the actuary may be forced to issue qualified opinions if unable to verify the receivable. This, I believe, will be of increasing concern to regulators.

The next situation relates to the provisions for dividend reserves. A similar situation also applies to provider settlement reserves. Dividend reserves apply mostly to insurance companies. It applies to medical cases. It can also apply to LTD cases. In the calculation of dividend reserve liabilities, an estimate of incurred but not reported (IBNR) or unpaid claims must be made. The issue is that occasionally the estimate of unpaid claims or IBNR is different in the dividend calculation than it is in the calculation of unpaid claim for financial reporting purposes. The difference is that unpaid or IBNR claims may include a margin different (higher) in the dividend calculation, when compared to the estimate of unpaid claims or IBNR for financial reporting purposes. For dividend purposes, the method to estimate unpaid claims is often different than the method used for financial reporting purposes. Also, not every case is eligible for dividends. The additional margin may be desirable from an operations viewpoint, but for financial reporting, it will cause the liability for expected dividend refunds to be understated. The understatement is equal to the difference in the unpaid parts of IBNR reserve calculations used for dividend reserves and for financial reporting purposes. In cases where it applies, I am not aware that regulators have ever challenged this difference, and this difference may actually be very difficult to evaluate in practice. However, this difference must be measured to have proper financial reporting.

For HMO provider settlement liabilities, we can have a similar situation if an estimate of unpaid claims is required in the calculation of the provider settlement liability. Table 3 is very basic but illustrates this situation.

TABLE 3
DIVIDEND EXPERIENCE REFUND RESERVE EXAMPLE:
ABC COMPANY

Premiums	$ 1,000,000
Paid Claims	$ 800,000
Reserves (IBNR)	$ 160,000 Financial Statement
	$ 200,000 Renewal Process

From the Floor: One of the presentations talked about the audiences for the various reports, and the IRS was listed. One of the things that comes to mind is the question of good and sufficient versus what is deductible. When you're dealing with LTD, you can set up whatever table you want for actuarial purposes. The IRS specifies what is deductible, but when you get into medical insurance, whether

you're an HMO or an insurance carrier, the question is how much will the IRS allow? How explicit does one want to be in the statement about the existence and degree of margins. I wonder if anyone wants to comment on that.

Mr. Martineau: I've not dealt with the IRS or gone through an IRS examination of the reserves. I believe the test should be good and sufficient reserves or best estimate. The IRS has the benefit of coming in after the run-out of claims has happened and can tell what the run-out was. If the IRS discovers a pattern of hiding excess reserves, I would have to think it would be fairly easy for them to disallow. But if you have a standard that's reasonable, 6% or whatever, a reasonable percentage that you can explain by the possibility of normal fluctuations, then at least you have a leg to stand on. I'm not sure that there are firm rules for this purpose, but certainly you want to be in a position where, if you get questioned, you can have arguments that you can defend. I don't know that I can ever defend a fairly large reserve that has a margin of 20% to the IRS.

Mr. Butler: I think the key there is making sure that your disclosure at the time of doing the reserves identifies what is the explicit margin, and I think people do have margins of 20% and greater.

Typically we'll show the best estimate, and we'll show the booked reserves, with the difference being the implied margin. There is a clear road map for any audience that comes in after the fact, whether it's the state insurance department examiners doing their triannual audits or the IRS. They're great at looking at things a year or two out and saying why didn't you hit this reserve closer? They're going to be always looking at run-outs compared to the actual numbers. I think it gets back to consistency. Fluctuating patterns in margins from year to year will begin to throw some red flags their way, and I think they'll begin asking you why, and that again is where your documentation needs to be clear and directed to the right people.

Mr. John P. Wagner: My company doesn't have any experience in refund liabilities, but I've been interested in this subject. Regarding your last example, are there any standards or model regulations that deal with experience refund liabilities?

Mr. Martineau: There's no written document that I can get my hands on. In the context of working for an auditing firm and trying to represent the results in a fair way, obviously the accounting rules would prevail. I'm not sure what FASB rule that is, but there's no argument. The claim reserve has to be at a level that is consistent everywhere, and additional reserves in all cases have to be added if there is a difference in claims reserves. In the case of a statutory situation, if we're producing a formula that leads to underreserving, and if the estimate of the

underreserving for that particular liability can be compensated by some margins in other places in the aggregate, we could as actuaries who write the opinion, probably sign off on it on a statutory basis. But we have to know what that difference is, and that in some situations can be very difficult.

Mr. Butler: I was just going to say that in reading through actuarial opinions there are some where actuaries don't express an opinion on the experience refund reserve. Given that it is in our realm, I would think we'd want to put it in there and certify it to some extent.

Mr. Wagner: You sort of asked my next question. Jerry, do you feel that it should be in the opinion?

Mr. Lusk: Yes, definitely, John. I think some of the major problems we've seen over the years have been with people not recognizing their dividend or their experience rating refund liabilities. This is a key area where review of the employer contracts is very important. I was involved in a lawsuit several years ago where a company booked a huge refund liability, but the contracts really were the old-type Blue Cross contracts that did not actually provide for refunds. It was more like a rate stabilization reserve. Well, the focus of the lawsuit was adequate disclosure and proper definition. Fortunately, my client never indicated it would refund any surplus to the employer. Unfortunately, however, the company did include on the balance sheet a "liability" for the rate stabilization reserve. This suggested to the judge that the company really had intended to return the surplus amounts to the employers. So initially, the judge ruled against my client. We subsequently won the case through the appeals process.

Mr. Wagner: Just one, final comment. I was involved in a lawsuit on rate stabilization reserves that went the other way.

Mr. Victor R. Paguia: My perception is that most valuation actuaries of insurance companies are company actuaries, and I assume the three of you act as valuation actuaries in an independent capacity. Are there some states that require the valuation actuary to be an independent actuary, and is there a trend in that direction?

Mr. Butler: I don't think any states require that they be anything different than a member of the Academy with their educational requirement up to date. The Blue Cross/Blue Shield Association has a standard that says if your actuarial opinion is done by a plan employee, you have to get a second one by a nonplan employee, just as an additional level of comfort that those reserves are adequately stated.

Mr. Martineau: There is one state, Minnesota, where there is a requirement for life companies that have a certain proportion of their total business (30% or more of their premium) in health insurance. Now I don't think it applies to HMOs, but it applies to life companies that have. Every three years they need an independent certification. It started in 1988, and they need an independent certification from an actuary who's not related to the firm. There was some question that was asked of me last week about Tennessee. I think Tennessee might have attempted to do something similar, and it made the requirement voluntary so nobody's going to do it. I haven't seen the text of the regulation. I got a call from a client that said Tennessee wants this, and then the client came back and said, no, it's voluntary, and we're not going to do it. So, again, somebody ought to look at the regulations in Tennessee. I haven't been able to find out what happened there. Minnesota is definitely the one, and to my knowledge is the only one.

Mr. Steven E. Keshner: Jerry, you mentioned earlier that there were two states that required cash-flow testing. I was wondering what those two states were, and what the circumstances were?

Mr. Lusk: I said there was at least one state I was aware of. If I said two, I was mistaken. West Virginia is a state that does require cash-flow testing.

From the Floor: Not asset adequacy now. This is cash-flow testing.

Mr. Lusk: Right. The regulators could not define what cash-flow testing was, but they required that it be completed under their interpretation of the law.

From the Floor: So even a gross premium valuation with a look at the assets would not satisfy West Virginia, as far as you know?

Mr. Lusk: That's correct. And we do a very simple cash-flow testing, and that seems to be adequate at this point.

Mr. William J. Bugg, Jr.: Don, if I understood you correctly, you said that in dealing with the IRS, you could not support a margin as large as 20%?

Mr. Martineau: First, let's say a large margin.

Mr. Bugg: I'll assume the reason you couldn't support it was because it was large and not small. That's why I used the word large.

Mr. Martineau: I think because it's large, that's right.

Mr. Bugg: Yes, OK.

Mr. Martineau: It depends on the block of business. You could go ahead and define—by doing some tests—and say that, based on this size of business, the standard deviation of expected reserve could be a certain amount. You could substantiate that with some studies. That's what you'd have to fall back on to try to justify it in there. I have a feeling it would be an uphill battle all the way.

From the Floor: Well, my question is, what size could you support?

Mr. Martineau: Jerry has mentioned a 10% margin, and I don't disagree.

From the Floor: Well, I think Jerry was saying he sees a lot—20% or more.

Mr. Martineau: I do, too.

From the Floor: What is the practice?

Mr. Martineau: If you have a company that is a stock company, usually you don't see 20% margins. That has been my experience. They tend to manage their margin at 5% or 6%. I would say this is the practice here. Medical reserves are what I am talking about now. Then you go into some other types of audiences, nonprofits or something like that, and they would tend to hold their reserve margins higher than that.

From the Floor: On the question about dividend reserves or experience refund reserves, if you don't set those things up appropriately, you'll get some real fluctuations in your P&L.

Mr. Martineau: Absolutely.

Mr. Butler: The question about the IRS to some extent depends on what the auditor will accept, and I think what I've heard is that what they notice is a change in margin. If you have a consistent margin, the auditor just fills out the worksheet that was done last year, and it flows through.

From the Floor: This is really directed, I think, at Jerry. The state of Kansas recently changed the valuation law. It didn't accept the NAIC version, but it did add adequacy-asset adequacy testing to the requirements, and then pointed you back to the actuarial standards. So, there weren't a whole lot of guidelines. One of the items that seems real clear is in the actuarial standards. If you are a Section 8 company, if you're large enough, and you do not do cash-flow testing, you have to

state explicitly the reasons why you did not do cash-flow testing. In your example you just said you didn't do it, and I was wondering if there were any guidelines. I provided an opinion this year where I went through and I showed how liquid we were. I went to one of the opinions where it says health liabilities may not need to be cash-flow-tested. I think that's Actuarial Standard of Practice #7. I listed out all the reasons why I didn't do cash-flow testing—the liquidity measures, and the fact that I did other methods.

Mr. Lusk: Yes, that's basically the documentation that we have behind our opinions.

From the Floor: You don't actually put it in the opinion, though.

Mr. Lusk: Yes, we have not been required to put it in the opinion. It has not been something anybody has asked us about after issuing the opinion, but we always have that kind of documentation.

From the Floor: Right.

Mr. Lusk: We go through the motions.

From the Floor: Doesn't the actuarial memorandum backs up the opinion? It's all in there, isn't it?

Mr. Lusk: We certainly have it in our files, and quite often we will mention more specifics in the management letter. That's synonymous with the actuarial memorandum.