

# RECORD, Volume 26, No. 1\*

---

Las Vegas Spring Meeting  
May 22-23, 2000

## Session 124TS

### Contract and Deficiency Reserves for Health Business

**Track:** Health

**Instructors:** TIMOTHY F. HARRIS  
JAMES P. GALASSO  
DIANA S. WRIGHT

*Summary: This session provides instructions on methods used for calculating contract and deficiency reserves. Actuaries with considerable experience in these valuations provide the details on how to go about calculating these reserves and how they are used for statutory, tax, generally accepted accounting principles, and risk-based capital.*

**Mr. Timothy F. Harris:** There has been a change in the program. Actually it seems to have worked out very well. Darin Dalton, who was initially scheduled, wasn't able to make it. He is a consultant and these things happen. We were lucky enough to get Diana Wright of the NAIC to fill in, and I think that's really going to be great. You'll see why I say that when we get into the material that she's going to cover.

We probably have people with various levels of knowledge in the group. The program says that you need no knowledge. Hopefully, there aren't too many people out here with no knowledge of the subject. We are going to focus a lot on something called the Health Reserves Guidance Manual. There might be people out here who have no knowledge of that. You will have knowledge of that when you leave. Those of you that think you understand are going to find out that there have been some changes to that recently, and you don't really understand that. This is where Diana Wright is going to help out. Diana is Associate Life and Health Actuary with the NAIC where she has been for about five years. She provides support for the Accident and Health Working Group (A&HWG), which is where something like the Health Reserves Guidance Manual will come from. She has many years of experience in the health insurance industry and has dealt with all types of health products. She has also done valuation work, as well as product development work for these products.

Jim Galasso, is a consulting actuary and partner with Ernst and Young, based in their Atlanta office, and he has more than 20 years of experience in the health industry and the managed care industry. I've known Jim for a number of years, and I think he is very knowledgeable in the managed health care industry. He was previously executive vice president and chief financial officer of Metropolitan's HMO operation. He also served as chief financial officer for the Blues in Florida.

I am Tim Harris and probably have more experience than the other two members, and most recently with Milliman & Robertson. My background is in both life and health. I was a member of the Product Development Section Council, and for a number of years I was on the life committee of the Actuarial Standards Board (ASB). I am involved in a number of other Society and Academy committees. My recent concentration has been on health-related committees including the committee that pulled together the Health Reserve Guidance Manual.

We're going to go ahead and start with Diana Wright. She's going to talk about contract and deficiency reserves for health business.

**Ms. Diana S. Wright:** Let me tell you a little bit about what I'm going to be focusing on. You'll hear a lot about the Health Reserves Guidance Manual. I'm going to be explaining it. Then we'll be touching on contract reserves and deficiency reserves.

I want to tell you I want to tell you a little bit of history about the Health Reserves Guidance Manual. It's an NAIC document. The NAIC has model acts, model laws, and model regulations. As a result of addressing some issues that came out of codification, the Health Insurance Reserves Model Regulation was revised. In the process of revising that model regulation, it came out that perhaps codification was not interpreting certain things correctly. Someone came up with the idea that it would be great to have a guidance manual for reserves. There's really just not enough information out there to help people know what to do, so a Health Reserves Guidance Manual was developed.

The Guidance Manual is' in the process of being put together. The American Academy of Actuaries was kind enough to volunteer the initial draft. It will provide ongoing support. The manual is maintained by the NAIC, so if you have any comments or revisions, go through the NAIC and not the American Academy of Actuaries.

The purpose of this manual is to provide guidance regarding the calculation and documentation of health reserves. However, by no stretch of the imagination is it a cookbook or a how-to manual. You won't see formulas in it. There is still a lot left that a person needs to know. It will kind of put things together for you. It also only addresses statutory financial statements. It is not intended to necessarily be used with rate filings. However, there isn't anything in there that says you can't use it for that purpose. The primary focus of it is on the NAIC Health Insurance Reserve Model Regulation, which deals with statutory reserves for health insurance.'

There are different types of health reserves. What happened is they decided to go with some basic reserves first. They started with claim reserves, contract reserves, provider liabilities, and premium deficiency reserves. Additional reserves might be added, such as unearned premium or premiums—paid-in-advance reserves. Those will be coming from the Academy first, so if you want any involvement with those other types of reserves, that will be starting out in the Academy Committee. That formal request has not been supplied to the Academy yet, so you guys are on the cutting edge.

Another thing that I want to stress and that the states and industry like to point out, is this manual does not have the force of law. It is meant for guidance purposes only. If some state tells you they want something different, then I'm sorry, that's what you have to do. It has absolutely no force of law.

I wanted to be sure to mention is that 'it's a draft document. You will always see "draft" or some qualifier stamped on it. The NAIC has a couple of other what I call "technical manuals." There's one for small employers model rate regulations, and another one for Medicare supplements. Those are similar in that they are never exactly a final version that doesn't say draft. The reason being is that it has never gone through the committee structure of the NAIC. If you keep it at the working group level, "it's easier to change, "it's more available, and "it's more technical. When these get to the commissioners, their eyes kind of glaze over when you say actuary. You don't even get the whole word out.

We're going to be going over some of the revisions to the draft. These changes are so recent that there's still a conference call taking place on May 30. We are going to talk about the premium deficiency reserves. So that section, when we get to it, is still subject to change. It is not final. However, there will be another draft after the May 30 conference call that will be presented at the NAIC summer national meeting in June. What I'm anticipating is that that guidance manual will be distributed. There will be some conference calls subsequent to that, and possibly these sections of the NAIC Health Reserves Guidance Manual will be adopted at an anticipated interim meeting of the Accident and Health (A&H) Working Group in August.

The Manual will be adopted by the working group, so it will be effective and available for the states and other examiners to use. There will still be the other sections forthcoming because we are still working on them and interacting with the Academy."

This document, and the one that will be created for the national meeting, will be available on the Internet at the NAIC Web site. These documents are usually available on the Internet as long as they're in the process of revision. Once they are adopted by the A&HWG, then the documents will not be available on the site. You would probably have to contact the NAIC because they will be selling the final document. The NAIC Web site, [www.naic.org](http://www.naic.org), has a section called "Papers." I think it has a few more words than that. I think there's a subsection called "Insurance Related." After you get into the section labeled "Insurance Related," there's an alphabetical listing and you would go down to "H" for Health Insurance Reserves Guidance Manual.

The Guidance Manual addresses four different types of reserves. I'm going to be talking about only two of them. The contract reserves are an interesting phenomenon. HMO people probably don't hear a whole lot about contract reserves. A contract reserve is a reserve set up when a portion of the premium collected in the early years is meant to pay for higher claim costs arising in later years. That's required for any individual or group health insurance coverage for which the present value of future benefits exceeds the present value of future valuation net premium. For instance, let's say you have an issue-age product. On the HMO side, you don't have too many issue-age products. A Medicare supplement might be an issue-age product. I think the issue-age approach is still fairly common on individual disability income and for long-term care. "The contract reserve is that portion that's being overpaid to make up for future deficiencies in the premium later on when you know that that attained age cost from the morbidity curve is going to exceed what is paid.

Also some individual major medical policies are on an attained-age basis. So they follow a morbidity curve. However, they do have some pre-funding built in, so it's not a pure morbidity curve for underwriting cumulative anti-selection. I can't say that it's only issue-age related reserve, but I would say it's predominately issue-age related.

What about the relationship to the other reserves? The NAIC wants the methods and procedures to be consistent. You want methods consistent for all of your reserves. You can't say, "Okay, I'm going to calculate the contract reserves under this scenario, and I'm going to calculate the claim reserves under another scenario." You want to have consistency in the way that you approach the reserves. The contract reserve methods will also impact the need for deficiency reserves. We'll come back to that concept later on.

Let's discuss the general requirements for the reserve calculation. The NAIC Health Insurance Reserves Model Regulation specifies minimum standards in the calculation of contract reserves. They include the basis for the assumption and the reserve method. The model is set up so that you sometimes must reference an appendix. If you have a copy of the model, you need to make sure you get the appendix as well. Basis requirements include morbidity, interest rates, mortality rates, and termination rate.

One of the things I found interesting at the NAIC is that the regulators are concerned that there could be under reserving, and there wouldn't be enough money in the contract reserve pool later on when the insureds need it. Whereas tax people are worried that you're going to have too much in reserves, and they don't want you taking tax deductions for it. Then you all get to balance these two approaches. We're concerned about having minimum reserves. Let me stress that the Health Insurance Reserves Model Regulation is only a minimum. If, for some reason, in your actuarial evaluation, you determined that those minimums were not high enough, you would be required by actuarial standards to raise those reserves to the adequate levels that you feel would be appropriate.

For certain types of coverages, long-term care, Medicare supplement and major medical, the model regulation does not explicitly specify a morbidity base. For instance, in the model regulation, if you have Appendix A, it refers to disability income. It references the 1985 Commissioner's Individual Disability Table A and the 1987 Commissioner's Group Disability Income Table. This hopefully has meaning to some people.

But there are others, such as long-term care, where there is no valuation or morbidity standard available. 'So what do you do? There is some language in the model that helps that actuary know what morbidity tables should be used. They should be used at the judgement of the qualified actuary and be acceptable to the commissioner. They should contain a pattern of the incurred claim costs that reflect the underlying morbidity, and they should not be constructed for the purpose of minimizing reserves. In other words, you should not be having a different morbidity table for your pricing than you do for your reserves.

The actuary should be satisfied that the selected morbidity bases produce a reserve that produces adequate provision for reasonable adverse deviation. That's an interesting statement. In the process of working on this Health Reserves Guidance Manual, and in the process of codification, it turns out that some accountants don't trust actuaries because they think they're too conservative. They think that actuaries set the reserves too high. So this is not the only place that you will see reasonable adverse deviations. That is addressed in a section of the manual that I didn't point out here. I think it's the general consideration section that is 'after the introduction.' It's in the last subsection, of the general consideration section and it talks about conservatism. You might want to review that. It helps to balance this fine line between trying to keep the accountants happy and satisfying the actuarial requirements that reasonable adverse deviations be taken into consideration.

So for a contract reserve, what kind of time period should you use to determine this reserve? For policies that are issue-age based, it's usually the potential lifetime of the policy. That kind of makes sense. For policies that prefund due to rate guarantees, the time period would be the rate guarantee period. This is a very logical decision. The minimum reserve standards provide for a one- or two-year preliminary term method. I'm probably dating myself because I use Jordan textbook words. I'm not sure what the current manual is. This is where life contingencies would come into play. It differs depending upon whether it's long-term care or not

The premiums in the first two years are more than sufficient to cover both claims and initial expenses. The prefunding of future claims might require an earlier starting point for contract reserves.

There are some other assumptions. The recognition of inflationary cost increases and updating the factors is not in the model regulation per se. This type of thing is in the guidance manual. The reason why it's in the guidance manual is because it's an appropriate actuarial consideration that you should be taking into account. If, for some reason, you feel that the standards in the model regulation are not sufficient, because of changes, because of inflation, or because of updating other factors, then you should take that into account.

Then you have premium deficiency reserves. The premium deficiency and the contract reserves might be interrelated, but they're very much different.

**Mr. Harvey Sobel:** I notice that in the draft manual it says that contract reserves could be required for group health. It goes on to say that it's not necessary to establish a contract reserve if a portion of the monthly premiums charged in part of a policy year is needed to offset benefit costs in another part of the same policy year. So if you have a one-year rate guarantee, you don't need a contract reserve. Now what happens if you have a two-year rate guarantee, and you have no reason to think your rates are inadequate? It's not going to be a premium deficiency reserve, that you would set up on a group basis. You'd reallocate the rate, and you'd try to set it up so you're setting up some portion of the premium to cover the second year inadequacy. Is that how you'd view it?

**Ms. Wright:** Right. It's going to get you one way or the other. That's a good example of kind of the difference between the contract and the premium deficiency. If your premium is sufficient, and it's adequate, then you might have a contract reserve. If your premium was aggressive acquisition pricing and it was insufficient, then you might have a deficiency reserve situation.

I had some new information on the May 10 draft, and I thought I would point it out to you. In Section One, there were some revisions, and they're minor. It stresses that the NAIC's model laws and model regulations in this manual do not carry any jurisdiction. There are different sources—not just the Health Reserves Minimum Standard Regulation set forth in this manual. What this manual tried to do was to consolidate the various sources. There is going to be reference to codification documents. There are references to actuarial standards of practice. The thing that's interesting and challenging is that they don't always agree. This manual is not intended to override any of those. It's not intended to settle any dispute among those. It is meant to try to bring everything into focus. There's a great deal of emphasis on the actuary's judgment and the actuary's ability to reconcile those issues. Each cited source should be reviewed, as there might be inconsistencies among them.

Page five discusses State of Filing vs. State of Domicile. There was quite a bit of discussion about that. Subparagraph B addresses the actuarial opinion and memorandum regulation requirement; it should be crossed out. The entire subsection B was deleted and removed. The reason is there was concern that the Actuarial Opinion and Memorandum Regulation (AOMR) might be going through some revisions, and they didn't want to date the manual that much. They added some language that says that the actuary should refer to appropriate and current AOMR requirements. That's added in the Section A. There are a few other minor wording changes, but I'm not going to go through those now. There was considerable discussion on the conference calls about the controversial interpretation of the state of filing issue.

Premium deficiency reserves. We've had a little bit of an explanation of the difference between contract reserves and them, but how are they defined? This is where you're getting into the most recent revisions from the version that you have, versus the May 10 draft. The other important issue is that the language that was added in the May 10 draft is that these reserves are for the remainder of a contract period. A premium deficiency reserve is a reserve that is established when future premiums and current reserves are not sufficient to cover future claim payments and expenses for the remainder of a contract period.

Then, other language was added. You might want to write it down because you're going to be wondering what the contract period is. There was considerable discussion about that. That's where you run into some of the differences between codification and the actuarial standards. All of the actuaries on the conference call kept saying, "The contract period should go to the end of the deficiency." So if you had a deficiency, that you were expecting for ten years, you'd go out ten years. There was concern that codification would permit it to end at the next renewal period. Here's the language that was added to account for that: "Considerable judgment must be exercised in determining the contract period when circumstances exist that artificially shorten the contract period (such as the likelihood of lapsation), or extend it (such as in regulatory limitations on rate increases)." (There is more detailed discussion of this in the time period of calculation.) A gross premium valuation or other method is needed to determine the amount of the premium deficiency." That's where you're getting into the differences between the sources. It's not a net premium valuation going on here; it's a gross premium valuation. "

What I'm going to be telling you about now is still going to be discussed on that May 30 conference call. It still could change in the June draft. I doubt it, but there could be some revision.

Premium deficiency reserves may be needed on any line. We talked earlier about the contract reserves. It's primarily on issue-age related business. Being at the NAIC, I've had calls. I don't mean to pick on HMOs, but the HMO model regulation lists different liabilities, but it does not specifically list deficiency reserves. There had been some arguments put forth that the deficiency reserves should not be included. We have the actuarial standards that say they should be included. If I remember correctly, HMO regulation only contains ' an example list. It's not

supposed to be an exhaustive list. Deficiency reserves may be needed even on HMO business, they can be needed on major medical, and they can be needed on other lines. They are in addition to any other reserve or liability. However, if you have a contract reserve, this may have an impact on the magnitude of that deficiency reserve. I'd like to deviate a little bit to the annual statement. How can you report a deficiency reserve? In the Life and Health Blank, there is a place where you can put that deficiency reserve. It's in the Aggregate Reserve section, I believe, under contract reserves. They are called policy reserves. On the current HMO blank there is not a really good line. There is no specific place to put that.

The new Health Blank that's coming out for 2001 will be applicable to HMOs, Hospital, Medical, Dental and Indemnity (HMDIs) and other health carriers. There is a line on that Blank that will be for contract or any additional reserves, which are basically your contract reserves. That particular line in the annual statement is the sum of contract reserves and the deficiency reserves. In the footnote for that line, you will be required to identify the total amount of the deficiency reserve. You won't have to itemize it on a block-by-block basis, but you will need to identify how much of that line represents a deficiency reserve. This comes out of codification. Codification requires that actual separate identification.

When should this deficiency reserve be established? 'In the May 10 draft, there is a section that has been added that talks about when a reserve should be established. 'The Health Insurance Reserve Model Regulation is one source. There is also *Statement of Statutory Accounting Principles (SSAP), No. 54*, part of codification. There are also individual and group accident and health contracts and *Actuarial Standard of Practice No. 14* discusses when to do cash-flow testing for life and health insurance companies. The May 10 draft references a new appendix which is Appendix 6. This appendix lists the source of guidance, whether it is the regulation or the codification SSAP, and quotes the specific section and language that provides guidance on when a reserve should be established. That's to help point you in the right direction. I would also encourage you to go to the cited source and look further. It helps point you in the right direction, but, again, you need to check out the context. It actually shows you the actual language out of those documents.

The calculation of the deficiency reserve is the sum of the present value of future paid claims, plus the present value of future expenses, minus the current claim reserve, including special large claims, current contract reserves less the present value of the future earned premium. In other words, how much money are you short?

How are contracts to be grouped for this calculation? Generally the groupings should reflect how the premium rates were developed and applied. This ends up resulting in groupings by product type and case size. For instance, you wouldn't necessarily want to lump long-term care with major medical. Those are two separate lines. They're not normally priced together. You would want individual separate from your large group. So you could have a major medical large group, major medical individual, and long-term care. Other criteria can be considered. One is marketing methods. There are also geographical rating areas and the length of the rate guarantee period. I am referring to the extent that such criteria materially affect premium rates. In other words, if you have area factors in your major medical, I don't think you want to necessarily calculate your premium deficiency reserve for North Dakota versus Florida. I don't think that's what it's really trying to say. It would have to have a material effect on premium. Each grouping should be large enough to be material relative to the size of the reporting entity as a whole.

I was a little biased earlier. I was thinking that if you had large groups, you would be looking at each one individually because they might leave you in a deficit position. That's not the way it is set up in the manual. It is set up so that you can put your large groups together. It's the net result of all of them added together, that determines whether or not you have to report a deficiency reserve. You don't have to do it that way. You need to do something that you feel is reasonable and is appropriate for your company.

What about the time period used for the calculation? For individual and small group, you'll generally use the guaranteed renewable period. If the carrier has clearly indicated that they plan to cancel a block of business, then the time periods are projected up to the point where the block would be terminated, if that date is prior to the end of the contract period.

Large group versus the mega group. Cancellation is technically an option; however, this might not always be a realistic option. This language was added to the Manual: "Any assumption made about cancellation of groups must be justifiable based on the reporting entity's practices and the historical experience." For some groupings, losses could extend indefinitely. You could have that. Therefore, you would have a perpetuity of deficiency reserves. I don't know that this is going to necessarily make you popular with upper management, but actuarially and professionally, you would need to take this into consideration.

Let's discuss assumptions. They took out the level of conservatism in the manual, because they refer to that other section that I pointed out. There's 'also enrollment. This is kind of different because in a deficiency reserve calculation, you can take into account reasonable enrollment assumptions. You take into account that they should be tied to rate increases and new enrollment should not be assumed to improve results. That is, you can't assume that all of these people that are coming in are all healthy so that your block is finally going to be wonderful. It needs to be consistent. On a contract reserve basis, you would not have your enrollment assumptions coming in. That's a difference between deficiency and contract reserves.

Another assumption is premium rate increases. You can reflect reasonable rate increases. Any market and regulatory restrictions on rates should be considered when establishing premium deficiency reserves. This also was an interesting point of discussion. Codification could be interpreted as not permitting the reflection of rate increases. What it's trying to say is the following argument will not hold: "I can increase my premiums later on, so I don't need a premium deficiency reserve." 'You won't be excused from establishing premium deficiency reserves just because you can raise rates later.' However, you should be able to reflect reasonable rate increases. I always like the word *reasonable*. So, it's not like you have to assume that there won't be any rate increases, instead you can reflect that there are some. You could go through a calculation and have it be a very low rate increase, and it could still justify no premium deficiency reserve. That's a possibility. But you would still need to go through the calculation and justify it.

Another assumption is claim trends. You should reflect durational wear off and adverse selection resulting from premium increases. To me, this is like doing a model office. You're basically asking, "What's going to happen with this business? Is it going to grow? Are terminations reflecting that? How are your expenses flowing?"

**Mr. Wes Weller:** I was formerly a vice president for the Foundation Health Corp. I'm an independent consultant now. The rate increase should imply adverse selection. If it's a capitated HMO, then you're not going to see the increased cost for a couple of years or until the capitated medical group or hospital realizes that it has experienced adverse selection.

**Ms. Wright:** In other words, the actuary was not raising the capitation to reflect the changes?

**Mr. Weller:** Yes, it's negotiated.

**Ms. Wright:** It's negotiated for several years.

**Mr. Harris:** Can you go over that again?

**Mr. Weller:** I just had an issue come up with a client. –It was a small HMO that had a lot of deficiency reserves. There was controversy. We had a model. I worked with Milliman & Robertson (M&R) to develop a model for calculating the deficiency reserves. A bigger rate increase implied an adverse selection component, particularly on the large groups where, my company was an offering among other companies. If we raised our rates, there'd be more out-of-pocket for the employees. An area of controversy was, to the extent that the HMO's claims were fixed under capitation, it would take potentially years for the capitated medical group or hospital to realize that they had worse risks and to negotiate higher capitation rates with the HMO.

There were a lot of arguments among actuaries. Some people thought that we should allow the adverse selection and realize the higher costs and resulting higher deficiencies.

**Mr. Harris:** You also need to refer to the contract that your client had with these providers. There are two other areas of guidance on this topic . One is the HMO Examiners' Handbook, which has a section on deficiency reserves. Another is the AICPA's SOP 89-5, which might also give you some guidance.

**Ms. Wright:** I think you would want to increase your claims projections for what you anticipate the claims to be. You would expect those to go up.

**Mr. Harris:** Definitely. But when you increase that, you turn around and pass that increase on to the hospital. You are passing most of the risk on to the hospital.

**Mr. Weller:** Generally, the cap providers have a 90-day out or sometimes a 60-day out.

**Mr. Harris:** Then that's another issue if they have an out.

**Mr. Weller:** I think there is a more general issue. When I work with clients, or when I used to work for companies, when setting reserves, I said there are three objectives. I'll give them in reverse order of importance. The first objective is to predict the future. Somebody said, "Never make predictions, especially about the future." That's least important. The second objective is to be mindful of who you're working for. You at least need to know your employer or your client's objectives in order to provide good customer service and remain employed. There's always a range of reasonable numbers. The third, and obviously most important one, is to be compliant. The entity that provides us the most guidance about being compliant is the Academy. That's what keeps the second objective in check. One problem I have, especially with deficiency reserves, is the range of reasonable numbers is too wide.

**Mr. Harris:** We've changed the presentation a bit. Since this is a teaching session, I'd like to talk about some of the requirements that actuaries have to be aware of and have to comply with in establishing reserves for health insurance. First, we have valuation laws, regulations, and actuarial guidelines. Then, there is something else that's imposed on companies during examination, which is the NAIC examiner's handbook. There is also a NAIC HMO Examiner's Handbook, which does address this issue and I think it will give you some guidance. In addition, we have standards of practice and SAPs?

The Health Reserves Guidance Manual is none of these. This is just a document that's out there providing guidance, and it has no force of law, but it might be imposed on examination. That's something that might happen to you in your HMO case. The examiners are going to come in with hindsight. They will be able to look at what actually happened and then make adjustments accordingly. However, the Health Reserves Guidance Manual really shouldn't be imposed on examination. It's more like the practice notes of the Academy of Actuaries . I think that's what we tried to equate it to in another session. Are any of you familiar with the practice notes that the Academy has out there? A few of you are. You should go to the Academy's Web site, [www.actuary.org](http://www.actuary.org), and look at the practice notes on the site. The manual is more akin to a practice note. It will provide us with some guidance.

I've actually chaired some other sessions on health reserves issues and have found that there isn't a lot of guidance out there on some of these health reserve issues, and the profession needs some guidance. We need something like this document. Actually, in my opinion, this document should have more force than just a draft. The little guidance that we have on health reserves can be found in the NAIC Model Health Reserve Regulation. Those of you that deal with the multi-state issue that we now have understand that only one-third of the states have adopted the present version. Another third have adopted a version that's about 25 years old. The tables and interest rates and everything else in the older version are out of date. Another third of the states have no formal requirements. They might have some requirement that you have to set up an unearned premium reserve or something of that nature. We really need this guidance, and we need to make it available to actuaries.

**Ms. Wright:** Let's discuss risk-sharing arrangements. Some risk-sharing arrangements with providers call for setting a budgeted versus actual program costs that might require the provider to share in losses if there are excess cost or allow the provider to share in gains. This would be an example of a provider liability. There's another section in the Health Reserves Guidance Manual on this topic. For you indemnity people that aren't involved with HMOs, this has absolutely no meaning unless you have a PPO arrangement where you might be settling up with providers risk-sharing arrangements. I haven't heard of that too much.

The amount due from the provider group should not be considered until it has been specifically determined. It should only be considered to the extent that it is collectible. For instance, if there is an HMO agreement where the physicians have to pay back money to the HMO, my understanding is that it is not always easy to collect. So the actuary needs to take into account the probability that they will get the money. If they have a history of not getting the money, then they should not reflect that they would get that money back.

Expenses for particular groupings should represent a reasonable allocation of all the reporting entities' expenses. The allocation might reflect that some expenses which might not be applicable to a particular grouping. If other lines of business can cover overhead, expenses used to test for a deficiency in the calculation of the deficiency reserve can be formed using only direct costs. '

The question from the audience was, : How do you determine that you can split expenses out but not allocate them? Say you were selling major medical and now you're switching to long-term care. It is a totally different product line. You would still have your entire existing overhead. You'd still have all the salaries, all your expenses, and you'd still have all of your claims people. Those are there left over from the major medical. In this case you might not' allocate that entire proportional overhead. I think that's what this is permitting.

You need to consider the time value of money in deficiency reserve calculations, and this needs to be used in the determination of present value. This should be reasonable, and based on the period of deficiency. If you have one year or two years, make your interest rates be appropriate, depending on the time period. The deficiency reserves should reflect taxes only to the extent the company will benefit from tax deductions.

Let's get into the other section on documentation. It's always nice to be able to know how you got the numbers. Who knows when somebody's going to come back and ask you to explain them, much less somebody else that would be filling your shoes. If a premium deficiency reserve is not required for any of the groupings, the actuarial tests that established that it was not necessary should be documented. You have to go through the calculations even if you anticipate a rate increase. You should keep that documentation. If a gross premium reserve was required, then you should have the documentation characteristic to the policies and the groupings. In other words, you've got to be able to justify your grouping. Someone might call you on that and question that.

You should also document' assumptions used in the calculation, as well as the inflation and utilization trends, and the time period over which revenues and costs were projected. Somebody has to be able to follow what you did. When you get into details, you might have trouble remembering what you did two years ago or a year ago. You may need to review it annually.

**Mr. James P. Galasso:** On the contract reserves, there is an exemption that if the business is a one-year term, say a large group, the contract reserve wouldn't be needed. However, there's no such exemption on the premium deficiency reserve. So I take that to mean that if either insurer or HMO issued July 1 business and it is December 31, and you have another half a year to go, you'd try to measure the deficiency for that half a year. You might do it for the group of July 1 renewals. But if you have January 1 business, you'd think that it is going to renew January 1. To the extent you think you can get the rate increases to offset any deficiencies, you'd say you would not need a premium deficiency reserve.

**Mr. Harris:** It gets a little more complex with HMOs when you're renegotiating some of the agreements with providers. You think you can get this or do that. Sometimes you don't really know what you're going to get until after the fact. You're talking about a December 31 valuation. Let's say you have partial years where you have a deficiency. If you've negotiated a contract with some employers at a lower rate than what it's costing you to provide them services under subcapitation agreements, then yes, you do have deficiencies. You should reserve for those at that point in time.

This gets back to the issue that there's not a lot of guidance on some of these topics. I've seen the partial year deficiency reserve imposed on examination. That is coming from interpretations of the Accounting Statement of Position, AICPA's SOP 89-5, and the NAIC's HMO Examiner's Handbook. Interpretations of these documents would impose a deficiency reserve for a partial year if one looks at the December 31 valuation.

**From the Floor:** I work for a Medicaid HMO in New York State, but I've done work in other states. In a lot of cases, you would have the deficiency reserves. The New York State Health Department has its own set of forms, and we sometimes get into why numbers disagree. But I can see a big problem if we're putting up deficiency reserves that we're now reporting back to the Department of Health. There's probably not going to be a lot of communication. I would encourage the NAIC to communicate with the health department. This whole concept is going to be a big issue.

**Ms. Wright:** You would need to encourage the State Insurance Department to talk to that Health Department. The NAIC has a connection only to the state insurance department. Actually, we don't even have an authority there. We are an association of the Insurance Departments.

**Mr. Laurence C. Williams:** You mentioned that amounts due from providers shouldn't be taken into consideration until they're actually calculated. What about the settlement amounts due to providers? There might be some risk/reward arrangements.

**From the Floor:** Those are additional liabilities. Are those addressed in this? I know they were in there at one point in time.

**Ms. Wright:** Provider liability?

**Mr. Williams:** I know you set up a provider liability, but do you take those into consideration in your premium deficiency calculations?

**Ms. Wright:** Yes. You're trying to see whether you are going to be short in money.

**Mr. Harris:** When you've accounted for those, you've already expensed those and thrown those into a different pocket within your statement.

**From the Floor:** The question might be on a projected, going-forward basis, do you have to try to estimate what those liabilities are going to be in the next six, eight, or twelve months.

**Mr. Harris:** Right.

**Mr. William T. Billard:** I have two questions. One is on the calculation. Was any consideration given to including the present value of the investment income that might be earned on premiums held in the future on the premium side of the calculation investment income?

**Ms. Wright:** I remember it came up. I don't remember why it isn't in there. There was one gentleman in particular that raised that issue.

**Mr. Harris:** I've seen some multi-year HMO contracts where interest was used to discount some of the outlying years taken into account. Is that allowed?

**Ms. Wright:** Yes, interest is allowed.

**Mr. Harris:** So that is allowed. I've seen HMO contracts that go out multiple years that are losing money. The results have been discounted back to the valuation date. That's taking into account investment income. I think of that as considering investment income.

**Mr. Billard:** It's not included in the calculation, though, strictly speaking.

**Mr. Harris:** Maybe it's not explicit.

**Ms. Wright:** It is only to the extent of present value.

**Mr. Billard:** It is present value. I'm not sure I've absorbed all this yet, but what if you are an organization whose overall strategy calls for a combined ratio of over 100% because you have earnings on surplus that more than offset that? Does that mean you have to set up a premium deficiency reserve for all of your business into perpetuity?

**Mr. Harris:** I wouldn't think so. I always think of these as being a contractual requirement. What are you contractually obligated to? You may have contracts with some type of group purchasing organization. What does the contract say? What does the contract with providers say? How long do those go out? When do those change? At that time, you might decide to change something. I'm not sure that I'd set up a liability for that. I don't think you'd be legally required to set up a liability for that. Jim might disagree.

**Mr. Galasso:** I believe that if a company formally takes the position that it "plans" to lose money on a book of business forever, it should set up a premium deficiency reserve equal to the present value of the losses it is committed to losing.

**Mr. Billard:** Then you're not going to have the surplus when you set it up.

**Mr. Galasso:** Yes, but you could view the premium deficiency reserve that has been set up as, effectively, "dedicated surplus." Therefore, the investment income on the assets set aside to cover the premium deficiency reserve will be available to help offset the ongoing operating losses.

**Mr. Harris:** But that surplus won't be surplus, it's going to become a liability.

**Mr. Galasso:** Yes, that is true. What I previously referred to as "dedicated surplus" is, in fact, a liability once you set up the premium deficiency reserve. But there will still be assets (hopefully) backing up this liability, and the investment earnings on these assets, in my opinion, will be available to offset operating losses.

**Mr. Harris:** You want to use the investment income on surplus as an income item to offset the losses? I don't think that can happen. That's where your investment income question is coming from?

**Mr. Billard:** No, The first question was investment income earned on premiums on the contracts that were in question. This is an overall question.

**Mr. Harris:** When you set up these liabilities, you're going to get investment income on the liabilities that you've set up that are going to offset some of your problem. So it will recharacterize surplus to a liability. I agree with Jim's clarification. What he referred to as "dedicated surplus" is actually a liability. Then the investment income will be offsetting your costs. If you're not for profit, maybe you don't care how your balance sheet is characterized. Maybe you should set it up as earmarked surplus. That might be one way to deal with the issue, which is not legally required, but as an actuary, you might feel that maybe you should at least carve out this part of surplus as being used to fund these shortfalls. That's something that you'll sometimes see in mutual companies. They might know they have a potential problem down the road.

**Mr. Galasso:** Another point of confusion arises when we attempt to distinguish contractual liabilities from a company's business practice. Many companies believe that if they have the contractual right to raise premiums with a 30-day notice, they never really need to set up a premium deficiency reserve. The literature, in my opinion, suggests that if your practice is to limit premium increases to annual renewals, you must prepare the premium deficiency reserve evaluation consistent with your business practice, not with what could be less conservative contractual obligations.

**Mr. Harris:** Jim, I guess we'll go on with your part of the presentation.

**Mr. Galasso:** Given the limited time remaining and the fact that we seem to have covered most of my presentation, I should be able to get through my presentation fairly quickly and still leave time for some more questions.

Statutory regulations with respect to premium deficiency reserves have been in a state of flux for quite a few years. Some states have formal requirements, and some states have informal requirements. Some states do not seem to address the issue, and some states apply the concept retroactively to companies they believe are having financial difficulties. I believe it is very wise to assume that a state has specific regulations even though a state might not. This is especially true if you're looking at a company or a plan that looks like it's having financial difficulties.

Let's talk a little about the basic components of a premium deficiency reserve calculation. Defining the market segments to be reviewed is generally the first consideration. We have already talked a lot about this. Obviously, there is some room for judgment with respect to selecting market segments for review. In general, the more one aggregates market segments, the lower the potential premium deficiency reserve requirement.

Other major components include premiums, premium increases already implemented, medical costs, medical cost trends, and membership by renewal cohort.

Other areas for consideration include the projection period, medical trends for the projection period, and breakeven administrative expense assumptions. One of the relatively gray areas involves the use of direct versus fully allocated expenses.

Finally, one will need to incorporate the valuation date, discount rate assumptions, and the company's marginal tax rate.

**From the Floor:** I have a question and a comment. On the expense issue, I'd recommend looking at SOP 89-5 because that does indicate that you use marginal expenses. Do you disagree with that? That's typically what I've seen used.

**Mr. Galasso:** That is what we typically see as well. This becomes problematic with respect to a company experiencing significant financial problems to the point where the company's solvency or viability might be in question. This becomes very much a judgment question and a possible Catch-22 because the actuary, in general, is not in a position (and is not expected) to review the overall financial viability of a company.

**From the Floor:** But if the company itself is viable and they just have one piece where they've negotiated a bad deal...

**Mr. Galasso:** Then I would agree that marginal expense considerations are consistent and appropriate given the current literature on the subject.

**From the Floor:** If pricing is a bit too low, then they should be allowed to use marginal expenses in looking at the deficiency reserve issue.

**Mr. Galasso:** Yes, it would appear appropriate and consistent with current literature to use marginal expenses in such a situation.

However, I have trouble divorcing premium deficiency reserve considerations from the question of capital adequacy. Given what I believe is a distortion of the income statement when premium deficiency reserves are set up, I would have preferred to review premium deficiency reserves solely in relation to capital adequacy. Unfortunately, the accounting profession and NAIC promulgations focus on the income statement and, accordingly, we must also. As an actuary, I am troubled when using income statements as a measure of a company's actual financial performance. You get significantly distorted views as to what's happening to the income statement unless you effectively remove the impact of premium deficiency reserves.

Another area of possible opinion differences in the still evolving area of premium deficiency reserves is whether or not to prepare the review assuming a closed block of business or to consider new issues. We generally prepare our review under the closed block assumption.

**Mr. Harris:** Can I comment on that too? The new business issue is kind of a gray area. I think new business should be taken into account where some type of contract has been negotiated with some group purchasing organization. They have the right to put new employers to you. I mean they force new employers at this unprofitable rate that you've negotiated to pick up market share. Those would be situations where new business would impact the deficiency reserve calculation that you would set up at a point in time.

**Mr. Galasso:** I would agree with considering new business to the extent a company has entered into a contract with acknowledged expected losses. The more typical issue that I have faced is one in which a company suggests that it will prospectively be writing profitable business and the profits from this new business should be available to offset losses on the existing business. I do not believe that it is appropriate to use such expected profits to offset ongoing losses.

Another issue that I wanted to talk about involves the desirability of interim reviews of premium deficiency reserves with respect to financial statement entries. While perhaps not required, I believe that periodic (ideally monthly) reviews of premium deficiency reserves should be considered best practice financial reporting. Limiting reviews to once per year at the close of a fiscal year, in my opinion, is analogous to only reviewing unpaid claim liabilities once per year. That is not consistent with the accurate and timely preparation of financial statements. Periodic reviews require the adoption of a systematic methodology of calculating premium deficiency reserves so you record incremental changes and adjustments throughout the year.

The following are some key steps in an actual calculation (please note that there is certainly more than one acceptable methodology for determining premium deficiency reserves):

- Select a base month. Ideally, data will be available for the valuation month itself (e.g. December 1999). For the base month, record end-of-month membership and premium per member per month (PMPM).
- Select a base period. Ideally the base period is a 12-month period ending on the valuation date (for example, January 1999 through December 1999).
- Select the projection period that represents the period of time beyond the valuation date for which the company can be expected to experience financial losses on current obligations (for example January 2000 through December 2000).
- Determine the premium trend to be expected for the projection period. This is a fairly complicated issue that time does not permit me to address in detail. Essentially, the premium trend should adjust the month-by-month renewal cohort premiums for historical premium changes.
- Select a base subset period and corresponding medical cost PMPM. This can be somewhat subjective but should be a relatively recent period that reflects current trends and expectations (for example, the quarter ending December 1999).

- Establish a breakeven administrative expense assumption. This might be established as a PMPM, or as a percentage of premium (for example, 8% of premium).
- Determine the monthly membership renewal distribution assumption so that the impact of monthly renewal increases can be modeled (for example, 8.33% for each calendar month).
- Establish the medical trend assumption that will be used to project medical costs throughout the projection period (for example, 1% per month).
- Select a discount rate for which projected losses will be brought back to the valuation date (for example, 6%).
- Select the company's marginal income tax rate (for example 36%).

**Mr. Harris:** I'm not going to do my presentation. I had really wanted to hear what Diana had to say. I'm glad that we could get her at the last minute, and that she was willing to do this. She really understands what's happening with this and did a good job explaining it to us. We'll take any questions that you have.

**Mr. David A. Shea:** I don't really have a question. It is just an invitation to everybody here. I was on the Academy work group that worked on the Health Reserves Guidance Manual and worked with Diana. I believe that if you go to the NAIC Web site, I think they list the dates and times and the topics of conference calls regarding things like this. I would highly urge any of you, if you're interested, to call in. You can call in as an interested party. That's how you're introduced, which basically means you kind of sit and listen, but you're more than welcome to offer your opinion. I would highly urge you to call in and listen and comment when necessary. It's pretty important stuff, so don't just sit back and say, "Oh, this looks like a bad idea. I'm not going to like it," and then not get involved.

I'm sorry Diana is not here, but I think I remember why investment income was excluded from the calculations of premium deficiency reserves.

**Mr. Harris:** Is it excluded? We were saying that it was included in the discount.

**Mr. Shea:** You discount with the present value. When we talked specifically about investment income, they said, "You are taking present values using the discount rate. Besides, you want to look at your insurance operations and not necessarily what you're taking in from investments." You are an insurance company, not a bank. That was kind of the notion there.

**Mr. Harris:** If you participate in the conference calls, you will need a credit card, right?

**Mr. Shea:** Yes, you do need a credit card. If you're going to be calling in more than once, they'll give you an account number. It costs about \$18 to \$24 for a one-hour call. It is money well spent.

**Mr. Weller:** I agree with Mr. Galasso. This particular one I was working on went out of business and their administrative costs were twice what they had been before. It wasn't anything less than administrative costs. But I liked her solution. If it's an ongoing thing, then it is variable administrative cost but if it's a company that's going out of business, then it's a different story.

The big one, it seems to me, might be the simplest to nail down. I'm referring to valuation date. You're doing the reserves on December 31, so you know what's going to happen with the January renewals. I don't know how you can ignore that. You know that there are some offers out there for big groups. The company has made an offer that will result in a loss, but it hasn't been accepted by the client yet. What do you do with that? As of what date are you calculating this reserve?

**Mr. Galasso:** I agree. Whatever the actuary knows as fact or believes to be a better representation than what might come out of a rigid model should be used in lieu of model-generated assumptions.

**From the Floor:** I think it's really a follow-up to his question. All of your January renewals have been delivered and many of them were filed and accepted prior to December 31. In Jim's example, I believe the Januarys were gone.

**Mr. Galasso:** Yes, I believe that both Tim and I said that that is what we normally see. The implicit assumption is that a company will renew its groups on a profitable basis. Thus, additional premium deficiency reserves are normally assumed to cease upon renewal. Current literature, as I understand it, however, does not permit using expected future gains from renewed business to offset the prior accumulated premium deficiency reserves. I should also point out that there is generally an awful lot of discussion between a company and its auditors regarding the need for and the level of potential premium deficiency reserves. This will generally include company management's view of how the business has been rated and reasons for projected medical cost trends. This can have a significant impact on the auditor's ultimate judgment as to the appropriateness of the premium deficiency reserves established by the company.

**Mr. Shea:** I was just going to make another comment about what you just said. The guidance manual, particularly on premium deficiency reserves, is not prescriptive at all. In fact, it started out to be very prescriptive. Then the decision was made that you couldn't possibly sweep in all different circumstances. You must pay attention to the wording in the manual like "maybe", "reasonable", "can be", and "should be." You won't find many places where there's a definitive "yes, you must" or "no, you shouldn't." I think it is very gray, but I think we all know where the bounds of reasonableness get crossed. If you're doing a valuation for December 31, and if you have a reasonable belief that certain things will occur next year, you ought to include that in the valuation and set the deficiency reserves up for those.