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GUARANTEES AND PERFORMANCE REQUIREMENTS FOR MEDICAL CARE PLANS

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A discussion of how employers are trying to limit their risks under medical care plans and the implications of such strategies for carriers. Examples include:

- o Multi-year rating guarantees or limitations on rate increases
- o Requiring guaranteed savings under cost containment or other benefit options
- o Imposing penalties on carriers for not meeting performance standards

This session will consider differences in the economic and random fluctuation risks, and the effectiveness of programs in controlling each.

MR. ROBERT H. DOBSON: John MacDougall is Vice President and Actuary with the Edward H. Friend Division of Johnson & Higgins in Washington, D.C. John consults primarily with plan sponsors on non-retirement benefits. He is the one who negotiates some of the favorable arrangements that we have been seeing with carriers, so it is going to be very interesting to hear his perspective on the plan sponsor's point of view. He will discuss how employers are trying to limit their risk under medical care plans. Ted Dunn, one of my fellow Health Section council members, is Vice President in charge of the Group Financial area for Provident Life & Accident in Chattanooga. Provident is very active in the new competitive environment that we are facing these days. Ted's

perspective will focus on the implications, from the carrier's point of view, of employers trying to limit their risks. I will wrap up with general comments from both perspectives and will discuss a specific analysis of multi-year rate guarantees. I am a consulting actuary with Tillinghast, Nelson & Warren in Jacksonville, Florida.

MR. JOHN A. MACDOUGALL: I am going to discuss on an anecdotal basis my experience in the field and how I see employer reactions. Your experience may be somewhat different, but I think this will be an indication of what is going on.

Medical care cost inflation is one of the things that bothers employers most. In just looking at cost of living figures, we find that the cost of hospital benefits has been increasing by as much as 15% in some years just on a CPI basis. Even in 1985, when the CPI increased 3.8%, hospital room and board rates went up almost 5%, other non room and board expenses about 5%, physician fees almost 7%. This is still quite a bit in excess of what we might expect looking at the general CPI. This is indicative of the problems that employers are facing and one which Joseph Califano recently addressed in one of his many articles. In the March 16, 1986 *Washington Post* he says, "Fed up with the waste and inefficiency of our health industry, the biggest buyers of health care are mounting aggressive efforts to change the way providers are used and paid and to reshape financial incentives that encourage patients to seek unnecessary care. These forces are sparking a sweeping social culture shift in how our people view hospitals, doctors and medical machines, etc." As you well know, Mr. Califano is on the Chrysler Board of Directors and involved in dealing with the problem of medical costs. He goes on further to say, "The result has been an explosion of unnecessary medical services, particularly surgery, often at unreasonably high prices. There are many examples to illustrate this, but none more revealing than the brief history of coronary bypass surgery in the U.S." Mr. Califano is certainly in the midst of stimulating action on the subject.

Another case study has to do with one of the Bell telephone companies. It decided that its medical care costs were climbing too fast. It did a study to measure the cost on a composite basis over a series of years so it could determine the reason for the increase. One of the things that it reacted to

negatively was finding out that a lot of its employees were moving over to HMOs. HMOs have been saying that they can save employers money by reducing the cost of medical care. Yet this company's cost on a composite basis was increasing from year to year despite the fact that more and more of its employees were moving to HMOs. When it looked into that situation, it found a lot of allegations of shadow pricing. So it decided as a first step, and I emphasize that this is the first step in its study, that it was going to review the relationships with HMOs. It determined that it wasn't getting the benefit of the mix on the composite. In other words, since the annual cost per employee was going up instead of down as employees moved to the HMOs from the indemnity plan, it felt there was a need to get an explanation.

I think there are a number of appropriate explanations, and I will get into this later. But the Bell company was unhappy with this. So what did it do? They started interviewing HMOs and in effect telling the HMOs that it wanted to get rates that would reflect its experience and not continue the practice of shadow pricing, although nobody admits to shadow pricing. What it did after its interviews was in effect to freeze participation in four HMOs, because it felt the HMOs were overcharging it. Because of employee relations, the Bell company did not want to sever relations with the HMOs, but by freezing the mix, participation would be reduced by attrition. There were still HMOs covering employees on an open basis; the company wasn't trying to eliminate HMOs altogether, and it agreed with the basic principle of the HMO. In addition, the telephone company has hired an audit firm to analyze its claims to find out whether or not they are being paid properly. The company anticipates -- at least it is advised -- that there will be savings in this regard.

This leads to a quotation from a *Scientific American* article: "In the absolute sense there are no right or wrong resolutions of these issues (namely the various costs of health benefits involved). It is rather the counterbalance of our individual positions as citizens that must determine the social policies affecting the kinds and numbers of health professionals we prepare, the facilities and organizations we create and the way we use and finance health care. Above all our collective position on these issues must determine the contribution of medicine to the quality and duration of our lives and perhaps of our

society." I think this is very pertinent to the basic questions we are dealing with.

Another pertinent question is, should the health care establishment be judged more on its capacity to investigate and treat abnormal pathology than on its accomplishments in helping patients and their families to understand and manage their problems? I would suggest that this relates to the issue of distinguishing between an HMO approach and an indemnity approach.

Associates of mine, Thomas C. Billet and Julie A. Cantor, prepared an article for *Compensation and Benefits Management* magazine which was published in the Autumn of 1985, on the topic of employers' experience with PPOs. They surveyed 140 employers regarding their PPO arrangements. In asking for the reason for joining a PPO, they found that almost 44% of the employers indicated the channeling effect. This emphasizes the fact that it is a cost problem. Only 18% gave more predictable costs as a reason; 15% said discounts. 45% felt that PPO arrangements resulted in decreasing costs after one year. Clearly the bottom line on the PPO arrangements was that there was a cost savings, and they were meeting some of the goals of these 140 employers. This has design and cost implications with respect to arrangements with the PPOs, which I won't get into here, but clearly you have to use these PPOs in the proper way. These 140 employers felt that they were.

However, it was interesting that three negatives dominated their reaction. Two of these negatives had to do with the restricted choice of providers; first with respect to physicians, second with respect to hospitals, which is somewhat of a contradiction for people who would select a PPO, because you would assume that would be one of the factors that they would be considering. The third item they mentioned as a negative was that the arrangement was confusing to employees.

What about controlling costs, which is what the employer wants? In the best of all worlds, the employer, the consumer, is looking for a fixed-level cost. Furthermore, that same employer wants access to the savings relative to this fixed cost. So it wants its cake, and it wants to eat it too. Under no circumstances does the employer want the cost to increase. That is what

employers are saying; that is what they want; that is what the Joseph Califanos are talking about. This of course dictates the consulting relationship to some extent with our clients when we are dealing with the employer. The American Society of Personnel Administration surveyed its human resources people and came up with the fact that the most important challenge facing human resource management in 1986 is company competitiveness and cost management. Its second concern is compensation and benefit strategy on controlling the cost of benefits. Health care cost containment programs are planned by 46% of the respondents. This indicates where the companies are coming from, and it indicates that they are going to have input to the results. For many of us here, that is a concern we cannot ignore. Is this a realistic expectation? Many of you are in the position to answer this.

On the question of controlling costs, I have just noted three general categories. First is cost transfer through deductibles and coinsurance. This is basically a problem in designing the plan. Second is cost containment through incentives. A lot of the flexible benefit plans have incentives, so if the employee doesn't utilize this benefit beyond a certain level or doesn't utilize it with respect to his or her own physician, there is a reward. Again, this tends to be more a design proposition than a cost containment proposition. It is, of course, cost containment. Third, and the category that gets much of the current publicity, is cost containment through application of medical control. This is more an operational factor and covers the screening of such things as preadmission certification and preadmission testing. A related factor is control of Coordination of Benefits (COB) as a cost containment device. We have had a number of problems trying to sort out cost savings or identify cost savings in this regard. I don't think it is a cost containment factor per se; it's claims control. It's handling claims and determining whether or not the claim administrator is doing an adequate job. It is not unusual to find a situation where somebody can charge 2% to handle claims and just write checks, while another can charge 12% to administer the program by doing a very detailed job. The proper experience is somewhere in between.

What about estimates of cost savings through COB? We hear 7% being thrown around like it is based on a very exhaustive study. There must be some source for these figures, but we are at somewhat of a loss to pin it down. Our firm

has attempted to negotiate guarantees on COB savings, but no one will give us a guarantee up front. What we sometimes have been given is a six-month rate, with the idea that it will then be determined whether or not there is room for a COB guarantee; then another six-month rate following which there will be another adjustment in the guarantee; and afterwards a rolling in of a COB guarantee. Clearly the purpose is to develop the experience on the case, and then determine if any savings might develop from COB. Another thing that muddies the waters in measuring COB is the fact that the state law on how COB is determined for children is changing from male primary to a date of birth determination. We found in the past, for example, that if we had a high percentage of males covered, we didn't expect much COB savings. If we had a high female content, we did. Now there will be very few, if any, benchmarks available which will stand up in negotiations with the administrators of the benefits.

What about cost containment through the application of medical techniques in general? This comes under the general category of utilization review and management. It incorporates, as I mentioned already, preadmission certification, preadmission testing, mandatory second opinion, case management, etc. There is a big selling effort behind these programs. But again, we find it very difficult to get advance discounts or guarantees with respect to incorporating these programs. As an actuary, I know what goes into the rate, as most of us do. We can say that the savings will range from 3% to 7.5%, perhaps averaging 5%. But we find that the discount decreases as the basic margin and the retention decrease. So when we get to an Administrative Services Only (ASO) arrangement we find that there is very little desire to quote a discount up front against the claims base. However, if I am selling the program and have more margin in my rate to protect me against a possible risk, I also have more margin to play with when I'm negotiating with the buyer on terms of the rate to be utilized. Our firm has made many attempts to negotiate advance discounts on various cost containment programs and has been relatively unsuccessful.

Our firm worked some time ago with Ted Dunn's company on the possibility of preparing a guaranteed cost arrangement with the State of Tennessee. The state gave a level of cost that it expected would be reasonable in the program, which was $83.6 million. This is a very interesting problem for an actuary, who must

look at the cost, the history of the plan and the level of trends, and then decide what can be assumed or swallowed to still make money on the case. The state was adamant about how the arrangement was going to work, and as long as our clients were willing to bid, the state could do what it wanted to. It was successful. Ted tells me the state ultimately placed the program with Blue Cross/Blue Shield of Tennessee. I am anxiously waiting to see what happens in the program, because we determined that given certain experience factors, you could stand to lose quite a bit on the case. The Request for Proposal (RFP) stated that the provider and the state would share in the gains or losses; however, on the loss side the provider would absorb 2% of the losses before there would be any sharing of losses beyond that point. After 2% of claims, the state would then assume 10% of the loss in the next year, and then the proportion would increase gradually until the sharing was 50/50. Whether that is a viable procedure is a question. But again, if we want the business we have to respond to these situations.

Our firm has attempted to negotiate claims audit standards on behalf of employers. This is done through studying accuracy standards and/or error rates. The error rates can be expressed in dollars or in terms of procedures. For example, we set a 5% standard. If the administrator does not exceed the 4.5% to 5.5% corridor, we assume that everything is acceptable. There is no gain or loss to anybody and no rewards or punishments. To the extent that the error rate exceeds 5.5%, there is a penalty on the administrator. To the extent that it is less than 4.5%, there is a reward factor built in. We have not succeeded in getting this accepted by carriers at this point. Again, when we are looking at cost containment standards and looking at these various approaches I have mentioned, we do not have any objective performance standards going in, and baseline information or benchmarks are basically lacking. It seems that any response to these requests involves a certain degree of risk on the part of the person proposing, because available information is not there.

Looking at the current cost experience in terms of medical benefits, the increasing trend has been dampened to some extent. We know the CPI figures are decreasing. Inpatient hospital costs are being reduced because of a movement to nonhospital environments or the outpatient environment. This, in turn, means that the costs for the outpatient and nonhospital benefits are tending to

increase somewhat more, but when we put them together, we are getting an overall decline in the rate of increase. Is this the result of cost containment? Frankly, I don't think it is. This is just one person's viewpoint, but I think that the medical providers are being affected and that we are benefiting from the sentinel effect. To the extent that anyone can tie this directly to specific cost containment features, all the better. The fact that the medical providers are aware that something has to be done means that they are responding to people like the Califanos who can influence their future in the long term.

Can HMOs reduce cost? I think this is an open question. If employers are looking for an absolute reduction in composite cost per employee, I'm not sure HMOs can do it, because an HMO has a certain basic cost to exist. Whether or not experience rating on HMOs is going to bring the cost down to the level that some of us would like to see I think is an open question. Among other things, I think this question ignores some of the primary purposes filled by the HMO, not the least of which is the gatekeeper approach, which is designed to control utilization and cost. Can PPOs reduce cost? PPOs generally don't address themselves to the rate of utilization. That is, if you are offering medical care at a discount, independent of the utilization, then the experience may be much like some dental plans we have seen. You can offer to cut prices on the dental procedures, but if you influence twice as many people to use them, the employer still is going to incur the same or greater cost.

Finally, I'll look at some of the multi-employer welfare funds that I have worked with and another group that I queried for this meeting. This group has eleven to twelve funds, and essentially says that cost containment procedures are not saving it any money. The attorney who was representing the funds also volunteered that the trustees were becoming more and more concerned with malpractice questions as related to cost containment. We've heard people raise this question before, but this group felt that it was getting into a difficult area. I'm not sure that this can be generalized beyond those funds, but I know that this group was concerned. The group of welfare funds that we service in our office, 501(c)(9) arrangements, do not have cost containment controls because the unions did not want them, and they had enough money to pay the benefits. Yet their cost features have followed what I mentioned earlier,

namely the movement from hospital to nonhospital costs, the reduction in the increasing trend of cost, etc. So I think there are a lot of things to be explored from the point of view of the employers.

I will close my comments by reemphasizing that employers are going to insist on reduction in cost. They do not want to assume the responsibility for medical practice, but they do want to reduce cost. I guess the question still remaining to be resolved is how we are going to do that in the long term.

MR. TED L. DUNN: I'd like to talk a bit more about the State of Tennessee plan. For about two or three decades, the Provident Life had provided the medical care coverage for the State of Tennessee, which is now a group of over 50,000 employees. We lost the case back in the mid-1970s to Blue Cross because the Blues had a 2% discount with the hospitals which was offset against the retention. We could not overcome that. Nowadays, a 2% differential doesn't seem like much when we talk about 15%, 20% and 30% differentials on PPOs. We were not successful in trying to get the case back because we were not willing to give the kind of guarantee that the Tennessee Blue Cross was able to make. Whether it will be able to handle that case at a profit remains to be seen. The other major entity that quoted on the case was HCA, Hospital Corporation of America, which is located in Nashville. It was quoted in a Nashville newspaper as saying that it was going to buy the case, regardless of cost. That was certainly an interesting competitive situation. But keep tuned. I've been around 35 years in this business, and I've seen a lot of things come back, so you have another shot. So be patient. A lot of things you do get another shot at.

Three areas which are of importance in the medical care area today are rate guarantee periods, guaranteed savings and performance standards, and last but not least, health cost management.

A typical group insurance rate guarantee period is one year. Multi-year rate guarantee periods, which were used by a number of insurance carriers some years ago, became rare in recent years due to the double-digit annual medical care claim trends. Currently, the significantly reduced annual claim trends on health care coverages may again make this approach a viable one for insurance

carriers desiring to use this as a marketing tool. Extended rate guarantee periods beyond one year may increase the risk of loss to the insurance carrier if there is an increased chance that the group insurance policyholder may terminate the group policy while it is in an underwriting deficit position.

Limitations on the amount of an annual rate increase produce a similar risk to the insurance carrier, since they also increase the chance of the group case having an experience rating deficit at the end of an accounting period.

The presumed advantage of multi-year rate guarantee periods is the certainty of cost which is then budgetable. Insurance carriers do charge more for giving multi-year guarantees than they would typically charge in their expenses for a one-year rate guarantee, so there is a trade-off.

In the marketplace today, there is a lot of talk regarding the possibility of guaranteed savings and performance penalties. In order to accurately assess results, reporting systems are required which will access data on specific group accounts. Most major group insurance carriers and third party administrators have available standard reports which are helpful in identifying utilization and cost trends. To explain such trends in greater detail, reports which are more flexible are needed to give consultants, brokers and clients the exact information required. It is not possible to determine ahead of time all of the variables which may need to be investigated with respect to the experience of a particular group account.

Accordingly, flexible computer report generating programs have been devised which provide information from claim data bases in almost any conceivable report format. An assessment of each customer's plan design, population demographics, geographical distribution, and past claim experience is used to address the particular information needs of that customer. For example, the claim experience of a particular group could be analyzed based on selection criteria including medical diagnoses, patient age and sex, provider specialties, city and state of patient and provider, particular types of services and procedures, provider tax ID numbers, etc.

Questionable utilization patterns for a particular company may also warrant investigation. If a report shows, for example, that the greatest volume of benefit dollars was attributable to female employees aged 25 to 34, data should be readily available to explore the diagnoses associated with this group and indicate irregular utilization patterns. A special report listing the names of the providers rendering such services, and whether these services were inpatient or outpatient, should be available in a matter of minutes. This type of flexibility can greatly assist decision making by benefit managers and their consultants.

Even though sophisticated computer analysis devices are in place, there still exists the problem of determining the extent of savings to the plan which arise from various features and services made applicable with respect to that plan. One possible savings is a reduction in the number of days of hospitalization per 1,000 employees. However, determining what caused the reduction in the number of days is difficult. Insurance carriers are quick to take credit for such reductions, which occur as a result of adding preadmission testing, preadmission certification programs, and concurrent utilization review programs. We also need to be mindful that random fluctuations continue to occur, and these may have some significant effect also.

Many of the health cost management services provided by insurance carriers involve an extra cost, and clients are interested in comparing this cost to the savings generated. Due to the difficulties involved in accurately measuring the savings arising from a variety of services provided, it is not at all unusual for an agreement to be reached with a client that the savings generated by the service will at least be equal to the cost of the service.

One of the extra costs incurred by insurance carriers in providing health cost management services is the liability assumed by the carrier in preadmission certification and concurrent utilization review activities. As yet, this is an unknown cost factor.

In spite of all of the difficulties involved in measurement of savings, examples of outstanding savings emerging in individual group cases as a result of health cost management activities being initiated do exist. Provident Life and

Accident has had several large accounts in which the actual health care cost per employee has decreased in the 25% to 30% range from one year to the next even though no other plan changes were made other than the initiation of the health cost management features.

Vertical integration of the health care delivery and financing mechanisms is currently occurring on a broad front. Insurance carriers and hospital systems are setting up joint ventures to market products through PPOs, HMOs, and traditional indemnity plans. A number of hospital chains have either purchased insurance companies as subsidiaries and/or made agreements with group insurance carriers to jointly market products designed to enhance their ability to compete in the marketplace. Such arrangements are designed to provide a larger market share to hospitals, other medical care providers and insurance carriers from the sale of jointly developed products.

Such joint venture arrangements are also designed to create positive incentives to encourage cost effective performance on the part of health care providers such as hospitals and physicians. Such incentives may include alternate payment methods to the health care providers such as Diagnosis Related Groups (DRGs), per diem arrangements, discounts or holdbacks, as well as risk-sharing on both the underwriting risk and the provision of health care as long as such arrangements conform with applicable law and sound business practice.

MR. DOBSON: As promised, most of my remarks will center on multi-year rate guarantees or limitations on rate increases. I thought I'd first look at both sides of this: the insurance company side and the employer side. Starting out from the employer perspective, I think the obvious main advantage, and main selling point to the employer, of multi-year rate guarantees (or any sort of limitation on rate increases) is the predictability and budgetability. This may be less important to employers right now than it has been, because there has been some stability for a couple of years. But we all remember the period when 30 and 40% rate increases were the norm, and it's possible that those will come back.

What disadvantages are there to the employer? The main disadvantage that I can think of is that where there is a limitation on rate increases, the maximum

rate increases may also become the minimum rate increases. That would be a disadvantage to an employer whose individual experience would warrant a different rate action. Also, of course, there are typically some obstacles to overcome to get the rate guarantee. For example, the most common program in the market right now is a dual benefit program where the employer has to achieve a certain amount of utilization of certain providers. Obviously, that may be a disadvantage to an employer who doesn't want to put in that kind of program. So it's not a cut-and-dried situation from the employer's perspective. But I think in the future, since we have to expect inflation to pick back up at some point, I would have to be in a position to recommend to employers that if other aspects of the program are favorable, they consider a program with rate guarantees. I think the timing is appropriate. The employer can always move, of course, if the program doesn't work out to be advantageous. But any time an employer is buying insurance, it is doing so to pass along some risk, and if it can get a multi-year rate guarantee or a limitation on rate increases, it is passing along more of the risk. So if the price and other conditions are right, I think it's a wise move for an employer.

The other side of that, of course, is the carrier perspective. The same risks that the employer passes off are immediately assumed by the carrier. Clearly it adds to the carrier's risk anytime there is any sort of guarantee; even the 12 month guarantee adds to the risk. But any time you go beyond that, it adds even more.

There are two types of risks that were mentioned in the program: economic risk and random fluctuation. In my opinion, the economic risk is manageable. The carrier can build into its rates and margins enough to cover the expected difference between whatever its cap is and whatever the actual trend experience is. If there are sufficient provider discounts involved in the program, this price for the additional risk can be put in and still result in a competitive product.

Let's work through an example. I'll show you what I mean about how a carrier can quantify this type of risk. In Figure 1, we started out by making some assumptions about the increase in the Consumer Price Index (CPI), and here I'm talking about the overall CPI, not just the medical care component.

FIGURE 1

CPI ASSUMPTIONS

CPI	*PROBABILITY*
5%	60%
10%	40%

The numbers in Figure 1 can be thought of as the mid-point of ranges. In other words, we have assigned a 60% probability that the increase in the CPI for the next year would range from, say, 2.5% to 7.5%, and a 40% probability that the CPI increase would range from 7.5% to 12.5%. Implicitly then we are saying that there is a 0% probability that the CPI would increase by less than 2.5% or more than 12.5%. With what is going on right now in oil prices, there may be more than a 0% probability of that very low CPI, but this example was put together some time ago, as you may be able to tell from the numbers.

I want to assume that we are dealing with a pool of groups that are small enough that their individual experience isn't going to have any credibility, and that they were rated and underwritten so as to achieve some sort of overall homogeneity. I'll also assume that the program has a rate cap equal to the increase in CPI. If you work out the numbers here, by the way, it comes out that the expected CPI increase, or the average, would be 7%.

The second set of assumptions necessary was what our overall medical care trend will be given the CPI assumption (Figure 2).

Again you can think of the numbers in Figure 2 as mid-points of ranges. You see that we didn't include any possibility of utilization decreases. The trend numbers are higher than the CPI number because medical care inflation has tended to be higher than overall inflation and because of such things as intensity of services provided and technology. But in the last couple of years there have been utilization decreases, so presumably we should have assigned some probability to the trends being as low as the CPI or conceivably even lower. However, this is just a simplified example to give an idea.

FIGURE 2

TREND ASSUMPTIONS

CPI	*TREND*	*PROBABILITY*
5%	10%	40%
	15%	60%
10%	15%	20%
	20%	60%
	25%	20%

The next step was that for each CPI and trend assumption, we had to make an assumption as to what the increase in our overall pool would be one year hence (Figure 3).

FIGURE 3

POOL RATE INCREASE ASSUMPTIONS

CPI	*TREND*	*INCREASE*	*PROBABILITY*
5%	10%	5%	20%
		10%	50%
		20%	30%
5%	15%	10%	20%
		15%	50%
		25%	30%
10%	15%	10%	20%
		15%	50%
		25%	30%
10%	20%	15%	20%
		20%	50%
		30%	30%
10%	25%	20%	20%
		25%	50%
		35%	30%

Looking at one example, for a 5% CPI and 10% trend, we said there was a 20% probability that a year from now the pool would need a 5% increase, a 50% probability that it would need a 10% increase, and a 30% probability that it would need a 20% increase. What that means is that there's a 20% probability that we have been overly conservative in setting the initial rates, or that the actual groups underwritten turned out to be more favorable than those expected, and that the rate increase would actually be less than what the trend was. We assigned a 50% probability of being right on; most of you might say that's a little optimistic for most of our actuarial work in the group medical care field. Again, though, these can be considered mid-points of ranges also.

Figure 4 shows the overall result of all of the insurance assumptions we discussed. Applying all the probabilities and working through the numbers, the range is from a 4.8% probability that the pool rate increase would be as low as 5%, to a 2.4% probability of a 35% rate increase. The most common number, the number with the highest probability, is a 15% pool rate increase, with 26.8% probability. If you took the time to work through the average here, the overall expected pool rate increase would work out to be 17.8%. If you remember, the expected CPI was 7%, so we're talking about a differential of just over 10%. It just happens to work out that way. So what we're saying is, looking at all the insurance assumptions, the expected overall average cost of a rate increase limitation equal to the CPI would be just over 10% of premium given this set of assumptions.

FIGURE 4

RESULTS OF INSURANCE ASSUMPTIONS

POOL RATE INCREASE	*PROBABILITY*
5%	4.8%
10%	20.8%
15%	26.8%
20%	20.8%
25%	17.2%
30%	7.2%
35%	2.4%

Obviously, you could come up with another set of assumptions that was just as reasonable and come up with different results. But this is a means of quantifying. Clearly, after the year is over, the cost of that rate guarantee will actually be anywhere from zero to 25% or more, depending on what happens. But these are overall expected averages to give an idea of how much the carrier would have to cover elsewhere in the rates.

That doesn't sound like a very good deal to the carrier, does it? Of course, there's a whole other side to this equation: the hospital side. It's not the purpose of this session to get into any of the mathematics of the hospital side, although I would recommend *Economics of Participation in Preferred Provider Organizations*, by Adele Palmer, for anybody who's interested in going a little further into the other side of it.

Figure 5 gives one little example of the mathematics of the hospital side. I want to emphasize that the numbers are made up. I just picked these so that it would work out to balance. In this particular illustration, we say that the provider gains 0% if the overall utilization of the preferred facilities is 25%. Essentially we're saying that 25% of the dollars are already going to that provider, so there's no gain from an insurance program that doesn't change that distribution. There's a very steep curve; at 50% utilization there is a 2% gain, and at 75% utilization it goes up to a 10% gain. This is what I was trying to find, because we wanted it to balance with the 10% cost we said we had on the insurance side. So this program would be in balance, theoretically, from the economic risk if it put in a 75% requirement for utilization of the preferred providers.

FIGURE 5

HOSPITAL SIDE OF EQUATION

% UTILIZATION PREFERRED PROVIDER	*% OF PREMIUM GAIN TO PROVIDER*
25%	0%
50%	2%
75%	10%

Now there are a couple of things wrong with stopping at that point. One of those is that you might question why anybody would want to do it if it just worked out to break even. Presumably people would do this to have a gain. So if it just offsets the extra insurance risk, you would question why they would do it. Secondly, this is all based on what I have called the economic risk, and we haven't talked about the random fluctuation risk. I think the random fluctuation risk is at least as important as, if not more important than, the economic risk. You can see that the analysis could get very complex.

There are also some interesting reserve implications here for the carrier, unless of course the provider rates are guaranteed for the same period as the rate guarantees. If there's a difference, it certainly could affect the reserves the carrier would have to establish.

Going back to the carrier perspective and the random fluctuation risk, I looked at our Tillinghast Stop Loss Manual and observed that for a group of 100 there's a 44% probability that the experience in any given year will be less than 80% of expected. And there's a 20% probability that the experience will be more than 120% of expected. That's a total of 64% probability that the experience is going to deviate by more than 20% in one direction or the other. To the extent that our initial rating on a group that has some credibility does not hit the group's actual true expected level, this risk increases dramatically.

Of course, any size group is going to select against the carrier to the extent it can. If you remember what I said from the employer's perspective, I was actually recommending that the employer select against the carrier. If we underrate a group initially, it is going to stick with us and take advantage of the guarantee. If we overrate it initially, it is apt to leave. A carrier can use a few things to cover that risk; one is a higher initial price; another is decreased margins, which are equivalent to covering the risk from surplus or accepting less profit or greater losses than the carrier would otherwise have. The carrier can increase the rates more than necessary on the groups with favorable experience. And that's the situation I mentioned where the cap actually becomes a minimum.

GUARANTEES AND PERFORMANCE REQUIREMENTS

At this point, I would like to make a few comments about the other types of guarantees that we are covering in this session. In my personal experience, I think I have run into three guarantee situations. One was a COB guarantee where COB was guaranteed by the carrier to be a certain percentage of overall cost. The way COB was defined, though, all third-party recovery was included. There was a retiree group involved, and Medicare was counted, so essentially the guarantee ended up not meaning much at all. It was, however, on the carrier's side, a dollar-for-dollar guarantee if it had meant anything. Two other cases involved performance, and they were defined in terms such as 95% of clean claims to be processed in 10 days or less. A clean claim was defined as a claim that came in requiring no additional information for adjudication. Again, there might be some area for manipulation of data there. But only one of those two actually had a dollar penalty. The other one was just a guarantee which I guess would have voided the contract, but it didn't have any sort of dollar implications to it.

Let's look from the employer perspective for a minute. I think there are some advantages to the employer in demanding guarantees like this or receiving guarantees. One advantage is that there are so many extravagant claims being made in the marketplace by carriers and administrators that it kind of forces the carrier or administrator to put its money where its mouth is. That's one reason why I would advocate employers' pushing for such guarantees. It also might force carriers to develop better reporting systems than they have now on some of the items we've been talking about. But there are some disadvantages. I mentioned manipulation of data. Clearly there's some extra expense involved if the carrier or the administrator has to develop additional reports. And finally, the carrier might actually charge for the guarantee. I think in a real competitive situation, all of this could be overcome. I think we are going to see more of these types of demands for performance and guarantees in the future. So I think that to the extent that we are not set up to deal with them now, we ought to be.

The carrier perspective is really just the inverse of the employer perspective. There is difficulty in covering the cost of guarantees in retentions on these very competitive cases. There are reporting difficulties, and there's

additional expense. But again, I think these things will have to be solved in order to remain competitive in the future marketplace.

A lot of us may wish that we hadn't seen this level of competition that we have seen over the last couple of years. It certainly makes our jobs more challenging. But I think it's good. I think it's spawning innovation, and I think it keeps actuaries on their toes and maybe even makes us more necessary in this environment. So I'm looking forward personally to seeing how it all shakes out.

MR. THEODORE W. GARRISON: I'd be interested in a little more about the State of Tennessee guarantee. Apparently there is some guarantee on the amount of savings from utilization, but how is it measured? Is it based on utilization per 1,000, or is it just by diagnosis? How are those guarantees measured, and what is the form of them?

MR. MACDOUGALL: That proposal required a set of standard claims costs, and the state set a benchmark, without saying how it arrived at that point. Needless to say, it had advisors also. So it established the benchmark, and then it was up to the proposer to determine whether or not it could achieve that goal or do better. So as I understood the proposal, we had the flexibility to determine how we would produce the savings. As a practical matter, we worked for a group of PPOs, and we coordinated with Provident on it, so we had a lot of good input to the response.

MR. DUNN: It was just an overall dollar amount of savings that was to be generated in whatever way possible.

MR. DAVID LEVENE: I'd like somebody to comment on the economic risk and the random fluctuation risk. Do you think there is risk in trying to evaluate where the group presently is when you're bidding on a new case and establishing what that current level of claims is from which you are guaranteeing the cost?

MR. DOBSON: I consider that part of the random fluctuation risk. You are not going to know the actual true expected level of that group initially.

MR. JOSEPH W. MORAN: So far you have only talked about guarantees that are given by insurance companies. In regard to the employer who has a noninsured benefit plan administered through a TPA, not only is the TPA itself making various kinds of promises, guarantees, and assertions as to what it's going to save on various components of cost, but the TPA also may be dealing with other providers of services, such as utilization reviewers who make their own guarantees. Can we expand the discussion of guarantees to go beyond those by insurance companies to include those of other suppliers?

MR. MACDOUGALL: My comments were intended to cross the gap there. I should have used the term administrator instead of carrier, to be precise. You are right. Every administrator, TPA, or carrier that is interested in the business is in the market making promises. How they deliver on those promises is the basic problem. If you are dealing with a TPA, chances are the TPA is not going to be in a position to assume much risk. The same goes for the person who is providing the utilization review and management (URM), assuming in this case it's independent of an insurance carrier. Many of the people in the URM business charge a fee per head. This reminds me of the early days of the pension business when people administered pension business on a per capita basis. It turned out to be very profitable. But what guarantee they provide is another matter. This is what we have questioned when a group has come in and said, "We'll provide you our URM service for so much per head." Our immediate response on behalf of the employer or the employer's response directly is, "How do I save?" It turns out that the possibility of savings becomes an act of faith. A year, two years later maybe there's a savings, maybe not. As Bob mentioned, you've got random fluctuations as well as economic fluctuations, so it may not be easy to say who produced the savings or who produced the loss.

MR. J. MARTIN DICKLER: In terms of the rate guarantees, could you clarify the size groups you are talking about for coverages or marketplaces? In a sense, do you see a movement away from experience rating? I can't quite place exactly the area you are talking about; I don't think you meant it to be general group insurance.

MR. DOBSON: I kind of mixed metaphors there. The example I worked through dealt with small groups with no individual credibility: the 10-50 life range. But from my observations of the marketplace, I think guarantees are being done with some larger groups as well. So the general comments were intended to include all sized groups where guarantees might be used as a marketing device. And it would affect experience rating in that it would be a multi-year contract, and regardless of the experience rating result, the rate increase could not go above a certain level. I'm not sure how it's administered as far as whether any rate decreases would be appropriate you get in the larger groups. I imagine it's an item that is negotiated group by group.

MR. RONALD E. BACHMAN: I thought you indicated there were three types of performance guarantees. I only picked up on two: COB and claims turnaround.

MR. DOBSON: I said I had observed three instances where I had seen them, and two of them were the same. Basically, two were the turnaround; on one there was a dollar guarantee, and on one there wasn't.

MR. BACHMAN: Do you see any movement for other areas? What will come next?

MR. MACDOUGALL: I think there is going to be an answer in terms of competition and in terms of how these cases will be handled as we go along. I think at this point it is an open question. I don't see any precise position by anyone on COB guarantees. I think that the carriers that have said they must have a certain experience on the case before they'll make a guarantee on COB are probably right.

MR. DOBSON: John, would you advise your clients to try to obtain guarantees?

MR. MACDOUGALL: Our approach, in the sense that we're representing the client, is that we're pursuing guarantees; we're pursuing any procedure that will stabilize the cost. Now, in the competitive environment, and hopefully with the input of knowledgeable people, we can ultimately arrive at an acceptable solution. Clearly, when we sit down to negotiate on behalf of the employer, we're doing just that -- negotiating. We try to set a position that's tenable and then try to use that position to develop something that will work.

In the competition, this is what develops the final product. This is why it's so interesting today; we are discussing this with so many intelligent and knowledgeable people that we know that there are going to be answers down the road. We may not know precisely what the answers are, but with this give and take, there will be answers.

MR. DUNN: The type of thing that the Provident would tend to be interested in would be, as an example, COB savings. Certainly there is some acceptable level that we could agree on, say 7% on a particular group case. It seems reasonable to us that we should have some incentive to try to do as good a job as we can. If the savings are more than, say, 7.5%, we would like to put some of that savings in our pockets rather than pass all of it back to the group insurance policyholder. On the other hand, if the savings are less than 6%, then maybe we should suffer a loss on the actual claim dollars themselves. I certainly find no fault with the reward and penalty concept of getting people to change the way they do things.

MR. BARRY L. SHEMIN: Actuaries know that guarantees mean assuming risk and that somebody who assumes a risk ought to be compensated for assuming that risk. Do you think employers share that perception? Are they willing to pay something extra for a guarantee? To put it another way, if two carriers are quoting, and one is quoting a certain price nonguaranteed and another is quoting a higher price with a guarantee, are employers willing to pay more to get that guarantee, or are they looking at it simply as a throw-in?

MR. MACDOUGALL: Employers are willing, as long as it's presented in a way that they will understand; after all, they're buying. What you're saying is that employers would in effect buy insurance to stabilize their medical costs. I think an employer will buy it as long as it's presented in a way that meshes with the economic facts of life for that employer. After all, employers buy a lot of property casualty insurance, and they know what the problem is in the risk areas in the nonlife field.

MR. ALAN N. FERGUSON: Ted, you talked about the guaranteed savings of a COB program. How about predetermination for PPOs? What kinds of savings do you think there are? How would they be measured? How do you measure the savings

on a predetermination plan if you put it in for a company and you say it is going to save you 5%? How do you measure the fact that it did or did not save you 5%? You might also comment on the kind of incentives you might get into with the providers of a PPO to make sure that you get the savings that you are guaranteeing.

MR. DUNN: I wish I could answer those questions because that would certainly be very useful. There are no real guarantees out there now that I can see that have definitely conceptualized. It does seem to me that there is an amazing amount of trauma currently present in the provider community. Doctors and hospitals are very much concerned about their market share. What I see happening in the future is the vertical integration of the healthcare delivery and financing mechanisms. The result of that is that some hospitals are going to close their doors or wings because they will not be able to compete. Some insurance companies that are presently providing group insurance will, five years from now, not be providing group insurance. This is the inevitable result of the types of things that are taking place in the marketplace today. What will be necessary for that to come about, and I think it will come about, is people's having to change their behavior. The doctors are going to have to be put at risk financially for their actions. That involves making significant holdbacks on them such as utilization reviews. They are going to have to have somebody police them, and they are going to have to police themselves. But all of that is in the process, I believe, of being conceptualized and being put together right now.

MR. MICHAEL J. SENOSKI: We have a few clients that are looking at a different aspect of asking for performance guarantees, which is asking carriers to guarantee that the errors that result in overpayments or underpayments be limited to a certain percentage. These errors are discovered by audits after a year's worth of claims are in. I wonder if there is anybody who does that sort of thing or has clients that do. It does just sweep in COB guarantees as one more aspect of performance of the carrier on a large case that is guaranteed, because you're measuring against the perfection that could have been achieved; you're not measuring against some artificial standard.

As a second comment, I think there is another risk that carriers assume, which is kind of a foul-it-up risk. It probably isn't that uncommon that a carrier is paying claims for the wrong plan for a certain period of time during the year. This sort of audit might uncover that more often. I think that one difference between large successful commercial carriers and new TPAs might be the frequency with which the new TPAs pay the claims under the wrong plan, but we haven't really delved into that a whole lot. I wonder if anybody else has.

MR. DOBSON: That's certainly another kind of guarantee which sounds worthwhile. I have never seen it myself.

MR. DUNN: We've discussed this with a very large policyholder. Our position has been that we really should do things mostly in a correct manner, and if we do, in fact, pay claims erroneously with the policyholder's money -- and that's what you are doing on uninsured benefit plans -- and it is outside the bounds of what can be mutually agreed is an acceptable error rate, then the policyholder should not have to fund those claims. Where it really gets interesting is when the carrier made errors and has underpaid. Does the carrier get to keep that money or not?

MR. FERGUSON: I might say that as far as incentives on PPOs, we have an arrangement with hospitals where we do hold back something, and then they get incentive payments based on performance, generally measured in terms of days per thousand members. We withhold payments also on doctors. This is a complicated system of incentives for them based on what panels of doctors achieve in terms of days per thousand. In addition to that, the numbers of procedures, lab tests, etc., that they provide are measured.

You didn't answer my first question, however, which is the question about guarantees, specifically on predetermination. Can you give a guarantee of X%? And then the key question is, have you any clever ways of measuring how in fact you have achieved that? What are you measuring it against?

MR. DUNN: We do not have any answers. No, we do not give those kinds of guarantees, because we do not know at this point how to measure them. To some extent, we are in effect giving a guarantee, particularly on smaller groups,

because we do reduce our charged rates based on expectations of what we think will happen in a PPO arrangement. But that is the only type of a guarantee we are giving now: an up-front rate reduction in anticipation of lower claim costs.