RECORD OF SOCIETY OF ACTUARIES
1987 VOL. 13 NO. 1

ALTERNATIVE PROVIDER REIMBURSEMENT MECHANISMS

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- Reimbursement structures
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MR. KENNETH S. AVNER: I wonder how many of you would find the following situation familiar. You are invited to attend negotiations between a health insurance carrier or HMO and a provider. You attend as an observer. After the negotiations are well advanced you are asked your opinion of various contract provisions: Are they feasible? Do they make sense? How should the risks be structured?

What we will try to do in this session is explore from a nonactuarial perspective what is usually the result of negotiations such as I described: an alternative provider reimbursement mechanism. I am hoping we will gain some insight into the needs and motivations of the various parties to these agreements. This

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should allow us to better understand and give better answers to the questions I mentioned.

As an introduction, I would like to begin with a brief classification and description of the common provider reimbursement mechanisms. Of course, until recently those mechanisms which we consider alternative were relatively rare. Sometimes I wonder if it is the non-alternative ones that are now becoming rare.

Let's begin with reimbursement for facility services. This would cover, for example, hospitals and skilled nursing facilities. I classify the four types of reimbursement methods into charge based, cost based, unit based and risk sharing.

First among the charge based methods is full billed charges. This is the traditional reimbursement method, but more and more carriers have replaced it with other methods, at least for some facilities with which they deal. Some carriers pay under a usual, customary and reasonable (UCR) charge system, but this is still unusual for facility charges.

Then there are the discount based methods. The details of discount based methods, especially for facility services, vary widely. The discount may apply from the first dollar of charges and be level, or it may be volume based, for example, by applying after some specified level of charges is reached and varying depending on the cumulative total of charges incurred.

An example of the latter method would call for no discount on the first, say, 100 admissions, 10% discount on the next 50 admissions and 20% discount on any additional admissions for the contract year. This makes sense to the hospital administrator who agrees he is willing to price channeled business closer to the margin but figures that the first 100 cases is his hospital's basic market share and does not represent channeling.

The problem with discounts is that both parties must be comfortable with the answer to the question, "Discounts from what?" This has gotten harder to answer now that hospitals' billed charge schedules have lost credibility in the eyes of most carriers.

Cost based methods for facilities are based, in theory, on the philosophy of paying the actual costs incurred by the provider plus a negotiated margin. The big problem is identifying which costs are included. How much of the overhead costs in running a facility, such as the capital costs due to building the structure, are included in the cost basis will determine how close the cost measure is to the marginal cost of providing the service.

There is also the additional problem of reporting and auditing. This may add significant additional costs from the carrier's perspective just to administer the reimbursement method. From the provider's side there are also added reporting and auditing costs which may be substantial. It may even be impossible for the provider's cost accounting system to report the data in a form acceptable to the carrier.

Finally, recently, it seems there is a trend to try to game cost based reimbursement by unbundling services. I guess this is really another attack on the issue of what costs are included in the cost for a service.

Unit based methods are what many people mean when they talk about alternative reimbursement mechanisms. The unit may be a service in which case the method is equivalent to a fee schedule. If the unit is an inpatient census day, then the method results in a per diem arrangement. If the unit is an admission, the method is a per case arrangement.

It is not usual to add a modifier to a unit based methodology, say a per case assignment, to assure a facility that it will not be getting only the most expensive types of cases for its agreed upon average per case reimbursement. In effect the modifiers are used to adjust for differing service mixes. An example might be having different per case costs for psychiatric, maternity and all other admissions.

And then we have my last type of facility reimbursement method: risk sharing. It might be a capitation arrangement or a joint venture. There are all kinds of creative alternatives which result from shifting significant risk to the provider.

Of course, in practice the methods I have described are not necessarily applied so purely. Frequently, they are combined or adjusted to meet the needs, or

should I say perceived needs, of the contracting parties. For example, a hospital may agree to a capitation arrangement but only if guaranteed a minimum per diem.

Turning to reimbursement methods for professional services, I classify them as (1) service based or (2) risk sharing. The service based methods are fairly standard and include: full billed charges, usual, customary and reasonable (UCR), discounts, fee schedules, relative value schedules, and service packages. I have already discussed some of these under a similar method used for facility reimbursement.

Among the risk sharing methods are (1) foundations for medical care, (2) Individual Practice Associations (IPAs) and (3) creative alternatives. Once you ignore the raison d'etre and size of the organizations, which from a purely actuarial perspective may be allowable, IPAs and foundations are quite similar. As before, creative alternatives include capitation arrangements, joint ventures and miscellaneous other variations. And of course there is a lot of mixing and hybridization of the listed *pure* methods.

Regardless of the reimbursement method chosen, there are other related factors that must be considered. What will be done about utilization review? How will it be arranged both before the fact and after? Who is responsible? What incentives do the providers have? How do the incentives of utilization review affect the compensation scheme or the reimbursement scheme?

There is a very important question. Once you have a reimbursement mechanism in place, what is to be done about increases? Will there be some kind of guaranteed increase? Will increases be handled by future negotiations or will increases be built into the original contract? Is it desirable to try for longer term contracts to lock the parties in? In a contract which accounts for increases, how are the increases handled? Should they be linked to the CPI, the Medical Cost Index or something else?

The important thing to remember is that almost any system that can be constructed can be gamed; and if it is somebody's incentive to do it, he probably will. Especially for carriers contracting with many providers through a standard

contract, it is important to consider the risks resulting from possible gaming of the system.

Finally we have the question of reinsurance. Sometimes reinsurance takes interesting forms. Most commonly you see stop loss, but if you think of Medicare's DRGs, that system includes consideration of outliers which is really a form of sloughing off some risk back to the payer.

I would like to conclude this theoretical discussion with one real example, a very highly visible example: Medicare. I am aware of Medicare using or having used four reimbursement methodologies: reasonable costs, reasonable charges, the prospective payment system (PPS), although generally called diagnostic related groups (DRGs), and risk contracting.

Facility services used to be reimbursed under a reasonable cost methodology. They still are for hospital outpatient services and certain other situations, but inpatient services are now generally paid under PPS unless a hospital has a waiver. Professional services are reimbursed under a reasonable charge system. HMOs and competitive medical plans (CMPs) can sign risk contracts to deliver a full range of services to certain Medicare enrollees.

The reasonable cost method is a full-blown cost based method involving substantial reporting and auditing components. Medicare can get hospitals to comply with its reporting requirements and justify the auditing overhead. *Reasonable charges* is similar to a UCR method. PPS is a modified per case arrangement with a couple of twists. Medicare risk contracting is a fairly clean demographics-adjusted method.

What sometimes gets lost in the complications of Medicare arrangements is what has been done to control cost increases. It is interesting to go back and review what programs Medicare has implemented that were specifically designed to control cost increases.

One specific program aimed at controlling cost increases was the Hospital Target Rule. It was used during 1982 or 1983, before PPS. Medicare computed each hospital's target increase. If the hospital saved money as compared to the target increase, the hospital pocketed 50% of the savings. If it went over the

target, then the hospital was only reimbursed 25% of the excess. The hospitals that have waivers from PPS, I believe, are still covered under this rule.

Medicare has a physician fee schedule known as Medicare allowable fees. As part of setting the fees, there is an economic index. It is supposed to be based on the general economic index of the area, adjusted for productivity increases. It is a nice complicated formula that is published periodically in the *Federal Register*. The intention is to control the increase in allowable fees. For non-physician service, durable medical equipment, ambulance services, etc., there is an inflation indexed charge screen. Again, if you flip through the *Federal Register* you can see how it is computed.

For professional services, the most draconian way of controlling cost increases, or at least thought to control cost increases, is for Medicare to implement a physician fee freeze. If you read the actuary's analysis for the Part B premium last time around, he gave a table showing that the unit cost did not increase at all while the freeze was in effect. It was very effective that way. On the other hand, what the actuary labeled the residual cost went up quite nicely. This means that doctors saw more patients or saw the same patients more or charged for more expensive procedures. It is interesting that even though the unit cost did not change at all, the money going to the doctors went up significantly anyway. When you take the fee screen off, the increase measured as intensity will go down, but now you are paying increased unit costs.

I would like to introduce Mr. Marc S. Engelhart, a Certified Public Accountant who is Associate Administrator of Finance with the Washington Hospital Center. He is responsible for the overall financial management of the 900-bed tertiary care hospital in Washington D.C. Mr. Engelhart had recently been Vice President and Chief Financial Officer at United Hospital, a 575-bed tertiary care hospital in St. Paul, Minnesota. He has an undergraduate degree in Economics and a masters degree in Health Care and Business Administration from Northwestern University.

MR. MARC S. ENGELHART: I'm particularly glad to spend some time with this group. In the last couple of negotiations that Washington Hospital Center has been through and analyses that we have done in trying to develop some alternative payment mechanisms, we have had actuaries sitting at the table. This is

a new experience for us. We're used to dealing with representatives from provider affairs, marketing and finance. More and more now, we're having actuaries join us, if not by their request, then by ours.

Recently, I have begun to think about health care on the basis of a quadrant or matrix. The acuity of illness is represented on the *X* axis and the cost on the *Y* axis. Where you want to be, essentially, is in the upper right or lower left quadrants. Those have balanced expected values. One would expect lower cost with lower acuity. Higher cost, as you go up to the upper right quadrant, is associated with higher severity. There are points in my two preferred quadrants that create what I consider the *efficient frontier.* I am borrowing the term *efficient frontier* from economic theory, where it represents the line along which you should be able to find equilibrium.

Hospitals are striving for this equilibrium line. My main hypothesis, and I believe this to be true for insurance companies developing reimbursement mechanisms, is that everybody is trying to find that same line. We are trying to develop a mechanism that will work in the lower left quadrant, where we are mass producing patient care, as well as in the upper right quadrant, where we have very sick patients.

Another dimension to the efficient frontier is value judgments. What you want to avoid contracting with, and what hospitals do not want to be associated with, is the upper left quadrant. It is a high-cost provider where the costs are high relative to the sickness of patients. You are wasting money, and the hospital is not an efficient provider. On the other hand hospitals in the lower right quadrant may look attractive. It appears you are getting a good bang for your buck; you are spending less dollars and treating sicker patients. I argue that at some point you are going to incur malpractice suits. Quality of care suffers and in the long run the patient, the insurance company, the payer, and certainly the hospital will not benefit. Hospitals should be operating along the equilibrium line. We want to take sick patients and treat them in the most effective fashion.

Again, as a preface to my comments, I am going to make some observations about the efficient frontier. First, as you move from the lower left to the higher right quadrants, fewer hospitals can handle the cases. Every hospital can handle

most of the lower quadrant's cases. Very few hospitals can handle the upper quadrant's cases. Second, there is a leaning toward tertiary care hospitals which are upper quadrant hospitals. Third, hospitals at the highest levels are likely to be teaching hospitals. The higher up you go along the efficient frontier, the greater the chance that you have teaching hospitals doing a higher degree of work. Fourth, as you go further up, the hospitals tend to be system members. They have corporate offices which add to their cost structure, but it also adds to their sophistication. Finally, as you move up, the hospitals themselves are going to be more sophisticated and are going to come to the table better prepared to deal with you.

Possibly the most important point I want to make is that the further up the line a hospital is, the odds are that the institution either has or is thinking of having its own HMO or PPO. It is thinking about vertical integration with insurance companies. It has the potential to either be very supportive toward your end goal and having a contract with your book of business or it could be your competitor. This is evolving.

I truly believe that this is a fairly good explanation of what is happening in the health care field, but nobody has the data to corroborate that yet. I believe that two or three years from now this will be clearer, and the battles are going to take place in the upper right quadrant because there are a limited number of providers in that quadrant. This could be happening right now. The tertiary care hospitals are boiling over. They cannot find space in their facilities. The vacancy problems are occurring at nontertiary care, nonsystem hospitals, and I believe that is going to have a profound effect on their business and what they will be able to accomplish.

I would like to provide an overview of hospital concerns and relate them back to my overall thesis.

To give you an idea where hospitals are coming from, why or why shouldn't a hospital contract? The basis for the contracts, per day or per case methodologies, result from assumptions. How do we go about making assumptions with the data problems that hospitals have, and that we are told carriers have? We suspect that you have that information, and I bet you suspect the same of us. It's probably a standoff.

There are future considerations involved in a contract. We're talking about a long-term situation not short term. The short-term players are going to be in for a very rude awakening two or three years hence.

Let me discuss the basic question. From a hospital's perspective, why contract? There may be several answers.

1. The hospital may desire to capture new business. It may be willing to make concession to capture new volumes of business.

2. Contracting may be important to keep the existing business. Hospitals, like insurance companies, reach an equilibrium. Preventing loss of existing business becomes more important or certainly as important as gaining new business. It is much easier to gain weight, I can tell you from personal experience, than to lose weight. Organizations are no different.

3. The hospital may feel that contracting helps support the medical staff. The hospital may be associated with a large medical staff and the resulting large fees. There is a surplus of professionals in various areas and, as a result, they are more likely to join HMOs, PPOs or IPAs. In order to support your medical staff, it may have to take patients that result in lower yields even though it does not particularly want to.

4. Contracting may support the long-term strategy. In our hospital, the first thing I do in the morning is try to find out how many people we have sitting in the emergency room because we do not have beds. We are running full. Yet, we read the papers. We know what is taking place. We know what is happening with the length of stay, outpatient procedures, etc. We are concerned with our long-term strategy. We are willing to make deals. We are willing to take a look at long-term associations.

5. And then there is future positioning. Everybody buys insurance for future positioning. No one is sure what is coming down the road. We are willing to part with some of the greenbacks in order to protect our position even though we may not have a strong philosophical bent or reason for agreeing to the newer reimbursement methods.

Why not contract?

1. The hospital is full.

2. We may be seeing the unavailability of a full staff, the nursing staff in particular.

3. The hospital may have a competing HMO or PPO. Again we are talking about hospitals that are operating in the upper level of sophistication. They have their own HMO and/or PPO. They are the class act of their area. They are a tertiary care hospital and they are not interested in being the success factor of a competing HMO or PPO. Agreements with competitors will lead to giving up enrollees.

4. The hospital may not have an HMO or PPO nor a desire to have either, but also does not want to be the success story of a carrier's alternative delivery system. Hospitals are not going to be willing to negotiate from this point of view.

There are other factors which I'm not going to dwell on. Very simply, hospitals are not going to contract with HMOs and PPOs working as brokers and not as underwriters. The benefit is not worth the risk. Another factor concerns quality. If you have what you believe is a quality health care institution and you are as proud as I have been of the hospitals I have worked with, you become very picky about with whom you want to do business. There are HMOs that we just don't want to associate with no matter what they pay us. We do not need their affiliation.

Now to get to a more meaty subject, the basis for a contract. There could be full charges, a discount from charges, per case arrangement, per diem arrangements, and capitation. Also there are various incentive contracts such as a base payment plus the hold back depending on experience, base plus incentive, or base with a risk corridor.

Unless we are all working toward the same goals, these contracts have little meaning. How does this relate to what hospitals are trying to do? The goals of insurance companies may not be in sync with our goals. Insurance companies

want to develop reimbursement methods that will reduce their costs overall, pass through the risks, and put them in a better marketing position. The hospitals, too, are looking for increased business. But reduced costs alone will not accomplish that goal. We are in a unique business where the receiver of the service, the patient through his physician's advice, is not the payer. The payer is the insurance company. With a totally disjointed purchasing functioning, who are the hospitals supposed to please? Hospital administrators are not as interested in projected charges resulting from prior experience as we are in the benefit structure. What incentives are provided to insureds to use our facilities? Are you going to assist us in managing our results? These are key factors. Mechanisms that will assist us in managing results must be in place in order for us to achieve the efficient frontier.

Enter practicality, a few comments on discount from charges. Discounts are easy to administer. How important is it to have simplified administrative procedures? Washington Hospital Center probably does business requiring 90 different billing methods. I have been subject to insurrections and even threatened with a firing squad by my own staff due to new reimbursement arrangements. I've been told that if I made any changes in administration procedures again, I would have to do the billing associated with the change for the first two months.

This problem was made clear to me by a parts-plus-labor contract we were negotiating. We thought we could insure the delivery of care at a particular cost. What we could not project was the use of pacemakers, valves and other prosthetic devices. That is something for which we could not give a per case value. It is possible for the costs of these devices to exceed the entire amount we would otherwise get paid. We did not know the mix. Try administering that contract.

Discounts have other advantages. At least the discount from charges pays for services used. It recognizes intensity or lack of it. It requires no segmentation, that is, we do not have to separate cost for varying admissions, such as obstetric, medical, surgical, drug abuse, etc. The problem with this is that you end up shopping for discounts not price. It is foolish to buy a car based on the discount. What you want to know is how much it is going to cost. Finally, a discount arrangement places the risk on the insurer.

One statement I want to make on discount from charges is that it may work in one quadrant of my cost/severity matrix but not in another quadrant. It will be out of kilter in one of the quadrants. If you set it right for this quadrant, it will not work for the other. Someone is going to get burned.

There are several reasons supporting the use of a price per case arrangement. First, you can compare costs of different hospitals. How much is an appendectomy going to cost at different hospitals? Also, you can recognize directed business. How many cases did you bring to me last year? How many can you bring me this year? Per case reimbursements can reward better utilization. The hospital benefits from shorter lengths of stay. Everyone should be happy. Finally, if you base on some sort of DRG system, you can account for differentiation of service by the intensity needed for cases of varying complexity.

Likewise, opposition to a per case basis is supported for a number of reasons. First, per case reimbursement requires segmentation and significant computer systems investment. It is difficult to audit. Also, there is little incentive to control anything but lengths of stay.

I need to make a point here. We have been hearing a lot about utilization. Keep the patient from being hospitalized. Get a second opinion before the patient is admitted for surgery. Hospitals cannot evaluate precertification. Our judgment of utilization is based on the population admitted. We can only evaluate utilization by the services provided, the number of lab tests ordered, the number of inpatient days, etc. Hospitals, believe it or not, are interested in good utilization. We do not necessarily believe that high quality means a high volume of tests or high charges. In fact, we have worked across the board to reduce charges, to reduce utilization.

Per case reimbursement does require some consideration for outliers because all cases are not equal. There is a strong possibility that a case may exceed the allotted or expected charge and time structure. The hospital could go under.

There is also a data problem with per case reimbursement in that our data base currently does not differentiate patients by payer. Hospitals do not really have a good handle on the differences in the populations related to different carriers.

If I believe what I have been told by insurance companies, they do not know the difference in the mix of insureds attracted to different hospitals.

Finally, simple per case reimbursement does not recognize severity or outcome. On the other hand, it may be the best reimbursement system that is adaptable to these situations.

Now let us discuss per diem arrangements. They are probably the easiest to administer. But when you start segmenting per diems, it becomes a disaster. How do you know how many days are medical or what costs are medical versus surgical? How do you know what charges are related to an ICU day versus a medical day when patients get transferred back and forth depending on their condition? It may not affect the billing, but it affects the integrity of the data base and both of our abilities to go back and identify where costs were incurred. There is also a significant risk on the hospital once you do have an overall per diem rate due to intensive care unit (ICU) utilization and ancillary charges.

On the per diem basis there is significant risk on the length of stay. As one moves up the efficient frontier, the costs per day are expected to be higher. What will happen as the length of stay drops off? You may compute per diems based on retrospective averages. Most people project expenses based on the activities currently taking place which may be intensified as length of stay drops.

One item which I feel needs to be discussed is what I consider community hospital charges versus tertiary care hospital charges. A tertiary care hospital can handle cases of almost any severity. Community hospitals can only handle the less severe cases. The cost structure of the different hospitals is traditionally based on different case severities. The populations used to project charges must be set differently for community hospitals and tertiary care hospitals. Basing a reimbursement procedure on community rates has a number of effects.

One of the things this means is that the direction of patients to the most appropriate provider depending on the severity of the case and the intensity of care necessary can be ignored by the payer. First, using community rates means that low price prevails. The buyer wants to buy the service; he wants to

contract with people and is going to use his overall data base to identify what he is willing to pay. Also, he makes no differentiation of severity and minimal differentiation in the amount of service delivered.

With community rates, quality may be overlooked. I am not sure how to measure quality, but there is a perception of quality that needs to be taken into consideration. Community rates give no recognition to providing a medical education to the insureds.

I feel there is no question but that this all places a risk on tertiary care hospitals. By distinguishing community hospitals from tertiary care hospitals, patients may be directed to the proper hospital. More data to assess appropriateness of care will be required, but a better relationship between service and costs should result.

There are some basic assumptions that hospitals are using to establish a pricing method. First, we consider volume and/or volume per enrollee. Then we look for a length of stay and finally we examine the bases of the averages. Again, all we're trying to do is establish that efficient frontier line. We are trying to reach an agreement using our data bases to identify where that line lies for a given body of patients.

In addition, there are some other problems in pricing, that I'm not going to get into: how you handle dumping policies; various internal hospital problems related to margin estimates; and cost shifting.

The most important question is utilization procedures. Are they cost effective? What are the physicians' incentives, after all it is the physicians who are really driving the process. What are the physician and utilization review structures? Are they set up so that hospitals can manage those costs and give effective care to the patients?

Hospitals are also evaluating the risk of contracting now or waiting. We are buying a data base and developing our own data base. We have considerations other than those of the insurance companies. Insurance companies are driven by profitability. Hospitals have that, I won't deny it, but they also have a mission, which again for the hospitals I've been involved with, has been very

important. That relates to not turning away patients and fulfilling our charitable function in providing care. This needs to be reconciled.

What I'd like to leave you with are the key strategies. Are the contracts going to be risk sharing or are they going to be risk shifting? Are they going to be short term or long term? What's going to happen to quality? What's going to happen to the perception of quality by our patients, your employees, and to the perception of your company by the insured?

This has reviewed my concerns. But let me end on my favorite theme in terms of risk sharing versus risk shifting, short term versus long term. What we are really interested in achieving, I truly believe from the hospital point of view, is that efficient frontier. That is where we are looking to operate. I believe in the long term we actually will reach it. The question is, how much damage will be done in the meantime before we reach that equilibrium?

MR. AVNER: Our next panelist, Mr. Michael A. Cadger, is President of Managed Care Concepts of Atlanta, Georgia. He has been the Chief Financial Officer of several Humana hospitals and had previously been Vice President of Finance for a division of CIGNA Health Plan. Mr. Cadger has an undergraduate degree of Finance from the University of Tennessee and an MBA from the Wharton School. He has represented hospitals, physicians, insurers and employers in negotiations.

MR. MICHAEL A. CADGER: Let me begin with some statistics. In 1950 health care expenditures were about 4.4% of the gross national product. Currently they are almost 12% and continue to increase. By 1990 it is projected that $3,000 will be spent on health care for every man, woman, and child in the United States. In 1985 employers' costs for health care benefits amounted to more than 10% of total payroll. According to a recent issue of the *Harvard Business Review*, health benefits are the third largest cost element for manufacturers after raw materials and wages. For service industries, it is the second largest cost. It is estimated that in eight years, health care costs will eliminate all profits from the average Fortune 500 company.

The conclusion drawn from these statistics is that purchasers of health care, which means almost all employers, really need to understand the health care

business. In contracting with a provider, one must allow for the proper incentives to promote efficient care by those providers in terms of both costs per unit and utilization.

I am going to discuss the two segments of the provider network, first physicians and then hospitals. Traditionally, agreements with physicians have really encompassed three methods of reimbursement. There is a fee-for-service with a withhold, a discounted fee-for-service, and then capitation. In the same order, the risk shifted to the physician rises from nearly none to almost all.

Based on financial terms, the contracts have had only a couple of requirements addressing quality and accessibility. A contract will generally provide x dollars per office visit on the condition that the physician will be able to arrange appointments within two weeks. The contract assumes that the physician will provide good quality care, but good quality care is not further defined.

A typical contract with an IPA that is a loosely knit group of physicians may state, "We expect you to provide care and overall it cannot exceed more than per member per month." This type of a group based contract, even with a 20% withhold will not provide an individual incentive. For example, $10 goes into a withhold pool. If the group budget is exceeded, that $10 per month is applied to any excess.

There is no individual incentive for physicians to perform efficiently, instead there is a free rider effect. If a physician can practice inefficient medicine and bilk the system for as much as he can, and yet know the group will be rewarded as a whole, he is not going to control cost. He is not counting on receiving that 20% anyway. Most insurance claims through indemnity plans have a 20% copayment. Most physicians recognize they'll probably never collect that, and to them it becomes a cost of doing business. It does not become an incentive. This is a natural result of a group award without individual accountability.

A physician abusing the system will have two excuses. First is an unusual case mix index. By this he means, "Because I am such a good physician and only the most complex cases get referred to me, the index reflecting the complexity of care provided to my patients is much higher than anyone else's." The other explanation for why he might exceed utilization norms and cost norms, is that he

is providing a high quality of care; as if, in some way, price has some relationship to quality.

HMOs have fairly rich benefit packages, all of which are very similar. The benefit package often provides a free physical every year along with other standard benefits. In the future, HMOs are going to need to differentiate their product from their competitors. In differentiating their products, HMOs are also going to have to address cost. In the future, HMOs will have to assist physicians in recognizing the cost of production and consumer perceived quality.

Physician incentive programs which have both group awards and individual awards are needed. The free-rider effect is beginning to be recognized as one of the great crippling effects of contracting with physician groups. Increasingly I am seeing more and more HMOs or indemnity firms contracting with PPOs requiring that only 50% of the reward resulting from the withhold may go to the group as a whole. If the group achieves managing to their budgeted expense, then 50% of that withhold is rewarded to the group. However, for each individual physician, we need to know how he performs compared to others in his specialty.

The types of factors that will be measured on a group and individual basis really fall into four categories: referral rates, referral expense, members' satisfaction and inpatient utilization rate.

When I was at CIGNA, one of the studies that we did was to identify, on average, how many referrals per hundred office visits are made by varying specialties, such as internal medicine, gynecologist, pediatrician, family practice, etc. This study quantified referral rates. We found that internal medicine primary care physicians tend to see more complex cases. Patients who sign up for internal medicine generally do it because they have some type of chronic problem. Not necessarily a severe problem, but a chronic problem that needs to be monitored closely over a long period of time.

Through a pretty broad based survey, we found that internal medicine physicians will refer somewhere between 16 and 21 patients per 100 office visits. What that says is, if you have an internal medicine physician and he is referring 25 patients out of every 100 visits to specialists, there is something wrong.

Now, it could be that his training does not allow him to treat those patients. It could be that he really does have a very complex set of patients and he needs to refer those patients. On the other hand, it might just be that he is lazy. It may just be that he does not really want to treat those patients in his own office. Those factors have an end result in increasing medical care costs as well as utilization. I see in the long run that actuaries are probably not only going to ask how much it is going to cost per member per month per primary care physicians, they are also going to need to know the referral rates by specialty.

How does the referral rate of this panel of physicians compare to a standard? The standards are being developed now. That is the leading edge. It is not happening across the board, but since I have done studies while at CIGNA and since I have been consulting, I have had several clients ask for this kind of data to quantify their projections as well as develop specific performance based incentives for physicians.

The question of referral expense should be asked in negotiations. If you have a set of contracting specialists, and your physicians are supposed to refer patients to those contracting specialists, what percentage of your total medical expense goes to noncontracting providers? For example, at CIGNA, one of our health plans had a great set of contracts. We had super discounts with some of the most prestigious physicians in a particular market. Yet, 70% of our referrals went to the noncontracting providers. What is the use of having a contract network with good deals and high quality if it is not used? If we do not exploit our contracts, the premiums have to be raised and we will no longer have a competitive product. Ultimately, you lose market share and you lose even more control of your system.

Are members satisfied? Physicians should be quantified on an individual basis as to their member satisfaction. In the past, this has been neglected and HMOs are recognizing the best or worst marketing representatives they have are the physicians. The patient of a physician who complains that the HMO is paying late and not enough is going to seriously consider switching to another HMO or insurance product at the next enrollment period.

Inpatient utilization rate, by specialty, will also be another factor. The primary care physician is responsible for his referrals and his patient day experience.

Four hundred patient days per 1,000 members may be reasonable for internal medicine physicians, but it's probably not reasonable for a pediatrician or family practice physician. The key here is that the primary care doctor as gatekeeper must also be responsible for hospital admissions by the specialist to whom he refers. He must be conscious that if he refers patients to a specialist who tends to admit patients to do testing when it could be done on an outpatient basis then he is ultimately responsible for that. As a primary care gatekeeper, he is supposed to protect the assets of the firm and he should be held responsible whether he personally admits that patient or whether he refers to a specialist who tends to be admission happy.

Those four categories, referral rates, referral expense particularly as it regards contract compliance, member satisfaction and inpatient utilization rates, are all factors of production which should and will be measured in the future in reimbursing physicians.

An HMO's ability to control hospital cost varies with the reimbursement methods it uses. The highest control of reimbursement occurs when the HMO owns its own hospital. The Kaiser model in California is an example. In a capitation rate, the risk is essentially shifted to the hospital. If there is high utilization or high cost, the hospital has to take that risk. If the hospital is reimbursed an average rate per admission, the risk of very complex cases is shifted to the hospital. Prospective rate per case is the same as an average rate per admission except it may include a factor to adjust severity by say, DRG. Average rate per day is just a per diem. The hospital does not run the risk of having long lengths of stay. They just get paid for every day the patient is in. If the hospital is reimbursed billed charges, whether it is discounted or not, HMOs have the lowest ability to control costs. An HMO's reimbursement arrangement is dependent on its relationship to the hospital. If the HMO owns the hospital, it is just an intracompany expense when a capitation rate is applied.

The reimbursement also depends on the market presence of HMOs. Capitation rates which indicate a hospital's market is controlled by HMOs occur when HMO presence is very strong. Examples would be in Minneapolis, Los Angeles, or San Francisco. Average rate per admission and perspective rate per case tend to occur when the HMO penetration is fairly strong. The HMOs are likely to have been in existence for more than ten years. Average rate per day of billed

charges indicate the market presence of HMOs is fairly low. HMOs have been a fixture in that market for less than ten years.

There are risk tradeoffs with each reimbursement method. When an HMO owns a hospital or has a capitation rate, the risk to the HMO is low, but it is high to the provider. It's an inverse relationship. With a physician staff model, where you have physicians as employees, you have a greater degree of control over their actions than if you are contracting with an IPA where they are pretty much allowed to do what they want.

The HMO's ability to shift risk to providers is a function of physician surplus and hospital excess capacity. Certainly a hospital that has 95% occupancy does not have an incentive to give concessions to the HMO or absorb risk. If there is a surplus of physicians in the market, then they will be amenable to contract to increase their volume of patients. They are probably going to give the concessions you need.

A little bit of economics for the HMO business is that, in a theoretical sense, an HMO ought to be generating a profit of about 5%. If they do get 5%, they are actually doing pretty well. Administrative costs run about 15%. Inpatient care amounts to about 35% of revenue, and outpatient care close to 45%. Interestingly, the outpatient and inpatient care sectors are flip-flopped from traditional indemnity insurance. In traditional indemnity, 45% of revenue is spent on inpatient care, and 35% is spent on outpatient.

HMOs try to play hard ball with providers because they are variable cost intensive. The objective of the HMO is to be able to control medical care costs, so that their total costs are less than the indemnity plans. This is all theoretical, of course, since the HMOs have high variable costs. The low fixed cost allows HMOs low break even volumes. But this also means low profit margins unless variable costs are managed. This is the reason HMOs make tremendous efforts to shift that risk to the providers and make them control their utilization as well as their costs of production.

Two or three severe cases can eliminate the profit margin of an HMO. A couple of premature babies that require several months of care can literally bankrupt a 40,000-member HMO. Another rule of thumb is that 15,000 members is generally

considered a proper break even point for an HMO. Increasingly, HMOs are not achieving that. It's taking closer to 30,000 members. There is no reason for this if they have the proper contracts from providers and if the proper incentives are there. The reason many of them are not breaking even at 15,000 members is because they are not providing the proper incentives.

I want to review each of these reimbursement methods and take a few jabs at identifying what is wrong with some of them. In discounts from billed charges, the HMO understands the value of discount in a nominal sense. They do not know hospital charge structures well enough to know if they are getting a good deal and acceptable quality, especially given the fact that a hospital charge structure is a very convoluted item. Hospital bad debts run from 5% to 12%. Contractual allowances, amounts that Medicare, Medicaid and other government programs do not reimburse, require the hospital to write off items that can run from 12% to 25% of hospital expenses. A hospital's income statement includes gross charges, and gross revenue which is charged less deductions from revenue. Deductions from revenue include bad debts and contractual allowances. Gross revenue could be as much as 37% less than gross charges. If the hospital offers a mere 10% discount, an HMO should argue that only the costs of production should be paid. The HMO does not want to subsidize Medicare, Medicaid or any other program that the hospital decides to use as a marketing venture. That's your decision. We want to pay you net revenues, which reflect pricing based upon your costs of production. Why should an HMO pay 90% of gross charges when net charges are 37% less? Hospitals, we feel, should be glad to give a significant discount knowing that the payer is going to be a good payer. He is going to pay on time. He is going to pay the full freight based on the cost of production.

Many hospitals feel they have a moral obligation to keep the gross charges as low as possible. That is, they are resistant to applying the same types of pricing concepts used in nonhealth care industries; for example, quantity discounts. Recently I was representing a group developing a network in negotiations with a psychiatric hospital that had high quality care. Initially, they were not willing to give a discount because their price per day was one of the lowest in the city and they did not understand why a discount was needed. Finally they indicated that they could raise charges 20% and provide a 20% discount!

Providers are going to have to recognize that they will have to use very sophisticated pricing mechanisms which will recognize discounts for quantity or to preferred customers. Ultimately what will happen is the only people who are going to pay full charges are the people who are going to pay out of their own pocket, the traditional indemnity plans or the small employer in multiple unit trusts. They do not have enough employees to be self-insured or to self-administer their own programs. That's the breaks!

The guys who pay the most ought to be preferred. If they are not, they are probably going to take their business elsewhere. If that means that the price structure is going to become more complex, that is OK. Everyone gets quantity discounts from the wholesaler or retailer.

With the per diem reimbursement arrangement, the purchaser needs only to control hospital utilization. The savings to the purchaser is the discount based on the average per diem. The hospital takes a risk in assuming that the patient intensity of care will not vary adversely. The hospital needs a guarantee of a significant population size to insure that its risk is minimized. This is reasonable.

A hospital may propose prospective rate per case reimbursement which is a base charge multiplied by the DRG factor. There are some significant problems with this arrangement. When hospitals use this arrangement, they are looking for a way to increase their ability to serve the more complex cases. The problem is that DRG factors are Medicare based and really may not have any relationship to treating younger, more ambulatory patients. The DRG factor, because it is done on a national composite, really has yet to be proven to have any relationship to varying costs in a given particular market.

Hospitals rarely agree to a reimbursement arrangement providing an average charge per admission. This is due to the risk of patients requiring a greater level of care than anticipated. If the hospital does agree to this arrangement, the purchaser must be able to provide a large number of admissions to the hospital.

Hospitals that I have seen accept capitation rates typically have not understood how it worked. Similarly a hospital can accept reimbursement in the form of a

percentage of premium. An HMO may offer a hospital 35% of monthly premium. That may look like a lot of money, but when they look at the number of patients they will have to treat, if they do look at the appropriate information, they will probably recognize that this reimbursement method shifts the risk of very intensive care. Very few hospitals have accepted these kinds of agreements and those that have rarely understand the method well.

In the future, the same type of current reimbursement arrangements will exist. However, hospitals are going to be forced to use pricing discounts similar to discounts provided by nonhealth care industries. Hospitals are going to have to use product costing methods to determine the cost of goods sold so that they know how much of a discount can be given and still remain profitable. By doing this, they are going to have to use contribution margin analysis and understand that the fixed and variable costs within all of their operating units vary significantly. In other words, they have to know what the average cost of an appendectomy or any other procedure is. Each average cost must be broken down into variable and fixed costs. The lowest price that they will accept will cover all the variable costs. The most that an HMO will pay is full charges and that is not likely. Somewhere between those two levels of reimbursement is where agreements are met. It has to be beneficial to both parties in the long term. Both of those organizations, the provider and the HMO, must be profitable and capable of marketing their goods.

A couple of other important issues that can affect pricing are frequently neglected. One is prompt payment discounts. If the provider is paid within 20 days or 30 days, there should be a concession. The cost of money is very important. Hospitals typically wait 60 to 90 days for payments. If you can guarantee to pay them in 30 days, certainly the interest cost on that cash flow alone should be considered.

Likewise, there is no reason why a provider should not ask for a late payment penalty. I have represented some providers in negotiations that have asked for late payment penalties. This is often used for slow paying insurance companies. Why should the cost of the provider's funds be used to subsidize the insurer?

The last item and probably the most important, is coordination of benefits and subrogation. Typically HMOs are generating somewhere around 1% to 2% in

coordination of benefits (COB) revenues. With just a very little bit of effort, that revenue can be raised to 4% or 5%. When you consider the profit margin of HMOs is only 5% in the first place, you are talking about nearly doubling the profitability. With a very good efficient system, there is no reason the subrogation or COB revenues cannot be 7% to 9%. If the providers can assist the HMO in obtaining additional revenues, then the provider deserves a higher reimbursement level. Alternatively, HMOs can offer competitive rates and require that providers generate X% of revenues through COB subrogation. Overall, the costs of production must be recognized by the providers and the pricing mechanisms of providers, in the long run, are going to be very complex and should reflect pricing in the same vein as typical wholesalers and retailers.

MR. AVNER: Our last panelist, Mr. Harry L. Sutton, Jr., will return us to the actuarial perspective. Mr. Sutton is Vice-President and Principal with Towers, Perrin, Forster and Crosby. Mr. Sutton has extensive experience dealing with HMOs nationally and is especially familiar with reimbursement arrangements from the Minneapolis, St. Paul area.

MR. HARRY L. SUTTON, JR.: I'd like to address a hospital perspective and a mixed perspective between HMOs, physicians and hospitals. I also want to discuss risk models and explain some risk models I have used.

Before I get into these topics, I want to let you know how competitive things are in the Twin Cities. Mr. Engelhart and Mr. Cadger have talked about what, theoretically, is good, bad or indifferent about HMOs. How the theory works depends on how competitive the marketplace is. The hospitals in the Twin Cities originally stated they would never get involved with an HMO. When they started losing patients, they did get involved with HMOs and they did take risks which, in many cases, they should not have.

In Minneapolis our HMOs are averaging a length of stay of about 3.5 days. Lengths of stay have been reduced even when intensive care is involved.

We have to consider the HMO and if it will work in the long run. There has to be an element of trust to achieve cooperation between the parties. Going back 10 or 15 years, the insurance industry, a capital industry, had money to invest. It still does.

ALTERNATIVE PROVIDER REIMBURSEMENT MECHANISMS

When I was working with community organizations, a group of physicians, hospitals on occasion, and others in setting up an HMO, we had very limited capital. Consequently, we had to design a risk absorption model in developing HMOs and I am still using such models today. It is possible that insurers will not have as good a risk absorption model because they have more capital to absorb risk than our early clients did. A risk absorption model, by my definition, is allocating a share of the risk to all the participating people in the HMO to the extent they can afford it. Essentially we are passing on to the physicians a risk that they can afford. The hospitals, if they participate, and initially they did not, are taking on the risk they can afford. In the short term, if they lay off the risk on the providers, the HMO will not go bankrupt and there are some HMOs set up like this today.

Let's review models that are related to reimbursement methods discussed before. I am only going to review models where some part or all of the risk is absorbed. It's not necessarily a payment mechanism but it does involve reimbursement and absorption of risk. The risk model may include reinsurance. This is part of the risk model if contracts with the providers hold the patient harmless. Reinsurance does not necessarily control the risk; however, it minimizes any surplus requirements of state insurance departments.

In a staff model where there are salaried physicians, the risk has been laid off by paying physicians a salary. You are not paying fee-for-service and the physicians must now control the number of services provided or recommended. This is one element of absorbing risk but it has drawbacks. The staff model is a capital intensive model. You have to build a clinic, buy equipment and you also have the problem of managing the productivity of physicians. In the early days when staff models were being developed, we had to control referral costs, as Mr. Cadger discussed. Negotiating discounts with referral physicians will reduce cost but it does not eliminate risk. Negotiating a capitation with a referral medical group both lays off the risk and fixes cost. The staff model needs capital to absorb risk unless they can transfer the risk to referral physicians and hospitals.

Medical groups are absorbing risk if a small population is involved because the mix of patients is difficult to project.

Early in the game, it was very difficult to lay off risk on hospitals. Hospitals did not understand HMOs and the HMOs did not have a patient load track record that hospitals could depend on.

Most commercial insurers did not have much interest in dealing with HMOs. In a number of areas, Blue Cross plans would write a group insurance plan, experience rated, on the members of the HMO. The price might not have been very good for the HMO at that time, however it did lay off the risk by paying a fixed premium to the carrier. There is more than one reason for doing this. In states where Blue Cross was frequently used to underwrite hospital claims, Blue Cross had a discount. By purchasing group coverage from Blue Cross, the HMO was guaranteed a discount that they could not have directly from the hospitals.

There is one element of risk which is still emerging today. Many large groups have networked with smaller groups and pay a subcapitation. If a subcapitation is not negotiated, the HMO should deduct the referrals from the budget on a monthly basis. Many medical groups operate on a cash basis and they have never accrued their liability for referral costs. On occasion they come to the realization, particularly if their enrollment levels out, that they have been spending more money on referrals than they can afford, or they have paid what should have accrued out in increased physicians' salaries.

The IPA model was the first model where the risk was completely self-contained. With group models, the staff model in particular, you have no control of the risk relating to hospitalization and sometimes minimal control of the risk for referral costs. I happen to agree that the IPA straight fee-for-service model is in deep trouble because of the lack of control of internal referrals and the free-rider effect referred to earlier. But if, in fact, you can withhold 20%, 30% or whatever is needed from the physicians' fees to cover cost overruns on hospital or other services, and you manage it properly, there is absolutely no way you can go under in the short run. You may, however, lose all your physicians because you have reduced their fees substantially.

Now it is interesting to look at insurance companies and other capital rich companies that are attempting to get into the HMO business. I question whether providers are willing to negotiate good deals for risk model purposes because the providers know that the carriers have substantial funds. The providers are not

going to be willing to take the same risks that the provider might take if they were starting the HMO themselves. The IPA has changed over time into a primary care capitation IPA model. The principal reason for this change is to control the use of outpatient and ancillary services. It is managed through a group of complex pools. You cannot pay a primary care physician a capitation fee and let him refer without any controls. Every time he sees a patient he will refer the patient. He will make money on his capitation, and the plan will go under through lack of control or referrals. We have developed rather complex pools. We are withholding 20% from the primary care physician, withholding 20% or 30% from the specialty group and these withholds should be able to absorb the risk of referrals.

We have one new model that is just starting and I do not know if it will work. There are 25,000 people in a subgroup of an HMO. We are seeing a movement towards HMO control of the primary care physician and loss of control by the specialty groups. This is interesting in view of the tertiary hospital aspect of a contract. We have a plan where the primary care physicians will get $10 to $15 a month and handle the bulk of the outpatient cognitive type services. There is a subcapitation for each single specialty. There are about 15 subcapitations of $.50 to $1.00 monthly each to the medical groups that cover specialty services. While there could be wild fluctuations between specialty groups, we have a large population with adequate experience. This IPA model has laid off its referral cost risk to a limited number of specialty groups through small monthly payments. How this works or whether it will work in Minneapolis, St. Paul or in other locations, I don't know.

Minneapolis has been a very interesting area. I am not going to review all the reimbursement contracting methods used in Minneapolis because all methods discussed have been used plus a few more, leasing beds for example. The HMOs have proven to be more knowledgeable than the hospitals. Every time an HMO has switched reimbursement methods, an example would be from discounted charges to a global per diem, the HMO has been able to take advantage of the hospital. After paying fee-for-service for a while the HMO knows what the experience is like. This advantage results from the fact that hospitals never kept track of their experience by payer, which was stupid. I can give you the best example I know from the Twin Cities. An HMO asked a hospital for a per diem. They already had a discounted fee-for-service and were paying about

$600 a day. The hospital looked at their Medicare cost report and came out with a cost per day, I'm not even sure if they included Medicare or not, of $350. It took the hospital three months to figure that they were being killed. Incidents like this, where the hospitals have been so inept in analyzing their own internal experience on reimbursement from HMOs, have allowed the HMOs to play the hospitals against each other in our area.

There are other ways of laying off some of the risk. Some HMOs have laid off the nervous and mental health as well as the chemical dependency risk by sub-contracting with groups. Even some IPAs have done this. They have, on a capitation basis, contracted with a series of pharmacies or a large pharmacy chain.

Essentially they try to contract with a set of providers and lay off the full risk. As referred to by Mr. Cadger, we are now developing, around the country, large HMOs which are contracting with medical groups, and hospitals in combination with a medical staff, offering a percentage of premium for non-Medicare enrollees. Whatever is charged in the market, the hospital will get near 33%, the physicians maybe 39%, and the HMO keeps the other 32% for marketing and profit. The HMO has a different percentage split for Medicare patients and once again uses a hospital or a physician group or a combination of a hospital and its medical staff. With the fully at risk arrangement, the problem is that the providers do not know what they are getting into. The consulting firm used to work solely for HMOs and we did try to explain to the physicians what kind of pattern of care they should see. We are now being hired by the hospital and physicians to determine if they are getting a good deal. We project the pattern of service the provider should see, the number of admissions, the number of intensive care cases, etc.

It may wind up that the provider will get $.50 on the $1.00 and if they want to contract on that basis, it is a good deal for everyone else. Problems that exist with the percentage of revenue reimbursement are that the provider has no control over what groups an HMO enrolls and has no control over the price they will offer to the marketplace. If the HMO wants to grow rapidly they just cut their price and it is automatically laid off on the providers.

Hospitals and physician groups are sophisticated and there is no reason they cannot take a total risk if they are large enough and have the money to support it. However, running around the country, contracting with patient hungry hospitals and medical groups on a reimbursement basis that assumes a high degree of control has the seeds for a real explosion if the controls are inadequate. The HMO has profited from the large enrollment but the providers may be disenchanted and cancel out of the plan. The whole HMO may be destroyed unless it is bought by a big insurance company that's willing to pay $1,000 per person enrolled.

One last point is that the HMO or carrier better have a good computer system to be able to live with all these machinations of different reimbursement rates. The hospitals, as well as the medical groups, better have a similar system. This should not be overlooked.

MR. JOSEPH W. MORAN: Mr. Sutton, with respect to capitation arrangements with physician groups, could you address the question of compensation to individual physicians within groups that would create the appropriate incentive to control referral.

MR. SUTTON: I would say one of the biggest problems we have in dealing with medical groups today is how the services should be divided up within the medical group and how much should be referred out. Historically, fee-for-service charges compare to from 80% to 90% of capitation. This doesn't mean the physicians are efficient. If you have a good computer system in the primary care physician model, you can measure the efficiency of the physician by how many referrals he makes, the number of admissions, and so on.

We are in the infancy of trying to measure productivity inside a medical group. Productivity has several meanings. How many patients per hour does he see? How many X-rays does he order? How many lab services does he order as well as admissions and referrals?

Fee-for-service medical groups that treat many prepayment patients have a real dichotomy because physicians who see prepaid patients may have discounts of 20% from their income, whereas the physicians who receive fee-for-service patients get 100% of their fees. If you use the typical fee income productivity scale,

the physicians get divided against each other on whether they want to see prepaid patients or not. In large medical groups there is more internal referral and more use of specialists than there is with a family physician participating in a primary care capitation model. The physicians from large medical groups are used to being specialists and refer frequently. Specialists are not ready to take minor services in another specialty because they do not feel comfortable. Many specialty groups will have to expand through the hiring of family physicians to do primary care. And many subspecialty medical groups are not geared to do primary care and are going to either have to build networks outside the group or change the way they practice within the group.