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CAPITATION ISSUES

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More and more providers are entering into capitation arrangements. Will they be the dominant approach? Where are capitation arrangements? Where should they be used? What are the emerging issues? What role does the actuary play?

MS. STEPHANIE B. BYRNE: I am a health care actuary with CIGNA Reinsurance in Hartford, Connecticut and a member of the Society. With me is Mark Cary, also a member of the Society, who works for KMPG Peat Marwick in New Hope, PA. Dr. Marta Kushnir, also with CIGNA Reinsurance, was supposed to speak but due to an emergency, she could not attend. So, I have put on my providers cap and will present the providers side. We're going to outline issues of capitation. We will not be delving into detail and will try not to pack too much into such a short time frame but rather pinpoint some very critical and fundamental issues where we, as actuaries, can especially change the way health care is fundamentally delivered.

MR. MARK J. CARY: As Stephanie said, I'm going to talk about some of the actuarial issues involved in developing and pricing capitations. I've broken the talk up into four sections. I want to answer a couple questions and then get into some issues involved with calculating capitations and other actuarial issues. I want to start by talking about why capitation and whom to capitate, which are some basic questions that we start with in the whole discussion.

One of the major reasons and strongest arguments for capitating providers is to align financial incentives. This transfers the risk to the provider and forces the provider to start thinking about the cost of the care he or she is providing, as well as the medical appropriateness and the quality of the care. Under a fee-for-service system, there is incentive for the providers to increase utilization in order to increase revenue; but under capitation, a provider has incentive to keep utilization at a minimum in order to make a profit. Another reason is to cut and *control* costs. The reason the word control is italicized is because it is not uncommon, if a capitation is implemented, for there to be an initial drop from fee-for-service levels due to the capitation. In years after that, there will be increases, large increases, that are consistent with historical trends. The point I'm trying to make here under capitation is that once it's implemented, it needs to be monitored and maintained so that annual increases are kept under control. That can be done through negotiated increases from year to year between the insurer and the provider. There can be increases that are tied to some sort of index like the medical component of the consumer price index (CPI). That can be written right into a capitation contract in order to help control annual increases. There can also be, in addition to the actual capitation payment being made to the provider, incentive payments, or what's sometimes called bonus payments, that are made to the provider if he or she is able to meet certain quality standards or achieve certain utilization targets.

Another reason for capitation is to achieve a means of managing care through insurer/provider relationships. The bottom line on this point is that it is the providers—the

physicians—that, for the most part, are controlling the care. An insurer or a HMO can have a medical director, but that director can't really completely control the care. So, it's in the company's best interest to try to get the primary care physicians and the other specialists in as part of a team and into a relationship where everybody wins. Get the providers on the same side in order to get them thinking in terms of managing the care, as well as controlling the care. I'll state a few facts to support the statement. In rough numbers, primary care physicians control about one-third of health care dollars, the other two-thirds is controlled by specialists through their own services and through referrals into facilities.

The final reason for capitation is for survival in the marketplace. Capitation is just something that is continually growing and spreading. It's becoming much more common. It's becoming much more involved as it takes on new shapes, and more and more specialized services are becoming capitated that previously were not. About two-thirds of HMOs are engaged in primary care capitations, 30% are engaged in specialists' capitations of some form, and 18% are in hospital capitation. I would be willing to bet that the specialty number and the hospital number are both going to continue to increase for some time before they reach any kind of a cap. Part of this argument of survival in the marketplace is that providers themselves are becoming much more enlightened. They're becoming much more open to the idea of accepting capitation. They're becoming educated on the issues involved with bearing the risk, and they're starting to gain an understanding that they want to be able to reap some of the rewards of bearing the risk that typically have accrued to insurers and HMOs because they've been bearing the risk.

Who do you capitate? A very general rule-of-thumb is that you want to capitate physicians who provide the most frequently used services with the most stable unit costs. It seems like people are trying to capitate just about everything. For any type of service that you can think of, there's probably someone that has at least tried to capitate it somewhere. I'd like to lay out some guidelines and issues to consider in deciding whom should be capitated.

Physicians who control the provision of care, a good example is primary care, is one of the first types of providers to be capitated for many years now because they do directly control the care of their patients. The patients are coming to see them first. They're not being referred by someone else. They have the ability to decide, along with the patient or for the patient, how treatment should be provided. As you get to some lower frequency services that have less stable or less predictable unit cost, you start to introduce some statistical fluctuation which needs to be accounted for in one way or another. This makes it more important to have a sufficient member base in order to dampen these fluctuations and spread the risk a little bit. With primary care, for example, you have a very predictable utilization pattern in comparison to some other services, and it's an issue that needs to be considered in setting capitations.

Another category of services that can be capitated that presents more risk is very low frequency services that have very high cost. A good example is transplants. If you look at an insurer's experience, you could have none or one or a very low number of transplants in one year, even for a fairly large HMO, but in the following year you might have five or six or seven. It's just very hard to predict; there is a lot of statistical fluctuation, and a complicating factor is that something like transplants or a neonatal case has very high

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cost-per-service. So, if you establish a capitation assuming some number of cases in a year, just one or two cases at such an extremely high cost can completely blow a capitation, and that needs to be accounted for in the capitation arrangement.

Another type of service is that of providers who do not directly control care. It's sort of the antithesis of a primary care physician; the patient is coming to see him or her first, and he or she is monitoring care throughout an episode. Some examples are emergency medicine physicians, anesthesiologists, surgeons and radiologists. I am in no way saying that you shouldn't capitate these. It's just that there are some other issues to consider in doing so, and you have to be sure, especially in the example of an emergency medicine physician, that an emergency is truly an emergency. It's unexpected and it's unplanned. It's going to be very difficult to offer a capitation to someone like that at 80% of fee-for-service levels and expect them to actually bring the utilization down because they can't.

One of the key roles that actuaries can play in this whole issue of capitation is in evaluating experience, especially with the use of claim probability distributions, where they're available, by determining minimum membership requirements in order to establish a minimum confidence level that a capitation is adequate. They can evaluate the impact of age/sex mixes on a capitation. They can evaluate the need for reinsurance and the levels of reinsurance required, that is something that I won't get into too deeply here. Stephanie will touch on that a little bit later.

Next I'd like to get into calculating capitations. Capitations are usually calculated on a per-member-per-month (PMPM) basis. Below is a fairly fundamental formula for calculating caps, and there are different variations of the formula, but they basically boil down to this fairly standard one. The information that's needed to calculate a cap is some estimate of membership for the period for which you're capitating the service; (a) the expected number of services or units of service which is usually expressed on a per-thousand-members-per-year basis; (b) the average cost per unit of service such as per office visit or surgical procedure; and (c) the value of member cost-sharing or copayments. The formula that I have presented is a very simple one. You're simply taking the average cost, backing out the amount that the member is paying or the patient is paying, multiplying it by the number of expected services, and putting it on a per-member-per-month basis. Typically capitations are going to be set and projected to a specific contract period between the provider and the insurer that are consistent with some premium rate period that the HMO or insurer has filed for.

$$\text{Capitation PMPM} = [a \times (b-c)]/12,000$$

Table 1 shows a simple example from a perfect world. Here is a case where, for 1994, we've looked at an HMO's experience and counted up a total of 120,000 primary care office visits. For those visits the HMO has paid out a total of \$6 million and had a total exposure of 360,000 member months. That's an example of our raw data. From that we can calculate the pieces of the formula that we need in order to calculate the PMPM, as displayed. First we calculate the average membership, the utilization per thousand members per year, and the average cost. We have experience that is from a first-dollar coverage benefit or plan where there was no member copayment. You'll notice that the \$5 copayment adjustment is an example of one of the adjustments made to a capitation to reflect the fact that if going forward into the projection period, we're going to be assuming

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a \$5 copayment plan, we might expect some reduction in utilization from first-dollar coverage now that each patient is going to have to take out a five dollar bill to go to the doctor. So, for something like primary care, that might make certain people think twice about doing so. That's simply what we're reflecting here.

TABLE 1
ILLUSTRATIVE EXAMPLE: PRIMARY CARE CAPITATION

<i>CY 1994 Experience</i>	
Office Visits	120,000
PCP Paid Charges (FFS)	\$6,000,000
Member Months	360,000
<hr/>	
<i>Average Membership</i>	30,000
<i>Utilization</i>	
Annual Visits per Thousand	4,000.0
\$5 Copay Adjustment	0.95
Adjusted Visits per Thousand	<i>a</i> 3,800.00
<i>Average Cost</i>	<i>b</i> \$50.00
<i>Copay per Visit</i>	<i>c</i> \$5.00
<i>Capitation PMPM =</i> <i>[a × (b - c)]/12,000</i>	\$14.25

Sources of information for calculating capitations. The most difficult part of any kind of pricing, including capitations, is getting sufficient data or credible data and information in order to do so. The ideal situation is where the insurer, or even providers, have their own data for the membership that you're capitating and contract the services and payments that were made as illustrated in the example. More often than not, you are not going to have the perfect information. What I've listed are just some examples of other sources of information that can be used in order to fill the data holes and gaps that exist.

There is published government data. For example, there's a great deal of Medicare data that's available which isn't a big help for commercial pricing. However, there are various government surveys, like an ambulatory care survey and a national medical expenditure survey that aren't quite as hard data as actual claim experience; it does give some good benchmarks and good ideas for where capitation levels should be for certain services.

There are several private industry reports by different organizations based on surveys and studies and so forth. Three examples that I have listed, that are often helpful are Health Insurance Association of America (HIAA), which for a fee, as with most of these, will provide physician fee levels by geographic area, by common procedural technology (CPT) 4 code, showing different percentile levels. I believe HIAA is based typically on commercial insurers which needs to be accounted for if you're pricing as a Blue Cross/Blue Shield or an HMO. HCIA is a company, who, for a fee, will provide summarized hospital data and provide it for a specific geographic area for certain types of services and can show

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utilization per thousand, cost-per-service, and I believe even have some sort of a rating tool or model that will help to evaluate the impact of managed care in a certain environment.

Another source is state insurance department rate filings, which are partially, in many cases, public information. This is a good source for smaller HMOs or newer HMOs that may not have the credible database to use to price their own capitations. If nothing else, they can at least get a handle on reasonable levels of capitation in order to negotiate with providers. Consultants of all sizes and shapes have all kinds of databases and tools and anything you could possibly imagine to help you fill your data holes.

For projections to the rating period, as you saw in the example, capitations are broken down into utilization and cost components, and that's typically how trend would be applied in a rating model. There are some issues to consider in developing utilization trends and cost trends for your capitations accounting for utilization, physician practice and referral patterns before and after capitation. In an example, where you've gone from fee for service to capitation, you're now providing incentive for your providers to reduce utilization, not increase utilization. They're being forced to think differently and will probably behave differently. It would make sense in the projection of your capitation to anticipate that change in behavior and the subsequent reduction in utilization.

Adjustments for benefit design changes. The factor that I show in the example is a component of that, but you need to be aware, going from a base period or experience period into a projection period, of any difference in your benefit levels. That will need to be adjusted for in your trend. You must consider any anticipated demographic changes, an older population or a more female population, a more male population, or whatever the case may be. What the competition is doing may factor into deciding what a trend should be.

There are items to consider in establishing unit cost trends. A very good benchmark, in the absence of more localized or specific data, is the medical component of the CPI. It's usually a good starting point to work from if you don't have better information. You want to reflect member cost-sharing and its leveraging effect on unit cost. I'm sure most of you are familiar with the leveraging effect, and that can simply be handled in a capitation model by trending unit cost on a gross basis and then removing copayments after the trend has been applied.

Technology and new drug therapies are a part of trend. Occasionally, new things will be developed, like a new kind of magnetic resonance imaging (MRI) or a new drug therapy, that can help avoid certain surgical procedures or diagnostic invasive procedures that can help save cost in those areas but would cause an offsetting or partially offsetting increase under the technology or radiology section or the drug section. Those are things to be aware of.

There are some other adjustments that can be made to capitations. We've already discussed utilization adjustments to reflect copayments or benefit differences, a provision for stop loss and, in some cases, an insurer may be actually providing the reinsurance to a provider. In that situation, an insurer would be paying the capitation to a provider and would withhold a certain amount that is effectively a premium for reinsurance where that

insurer would cover claims above a certain level. We also hit on adjustments to reflect the age and sex of the population being capitated. There are adjustments for point-of-service or other delivery systems. For example, under an HMO, if you're capitating for primary care services and then you introduce a point-of-service product where a member has the choice to receive those primary care services out of network, it wouldn't make sense to pay the point-of-service in-network piece at the same price as the HMO capitation level because now you have people that can go out of network for those same services. You don't want to be paying for those services twice.

With regard to adjustments for geographic areas, if you are in a situation where you don't have localized data or internal data, and you've used some sort of regional or national database, it would make sense to make some sort of geographic adjustment to reflect the cost levels in your own area. Actuarial margins sometimes can be applied depending on how predictable the services are that are being capitated.

I just want to go through some miscellaneous points, questions, and issues involved in capitation that are worth mentioning. These aren't necessarily in a prioritized order. Are providers in our market accepting capitation? Do you need lower rate increases to compete? These are just real-world questions that apply once you get beyond the theoretically correct capitation. You might need to ask the question of what's happening in our marketplace, and what do we need to do to be competitive? Another issue relates to more sophisticated capitation arrangements. The growth and spread of integrated delivery systems and physician/hospital organizations and all sorts of different risk-bearing entities just adds new complexities that may need to be accounted for at some point. There are incentive programs based on achieving quality criteria or following established managed care protocols. I think I mentioned that before. In addition to the capitation, there might be bonus payments contingent upon the providers meeting certain criteria.

Sometimes there can be cost shifting from capitated providers to other noncapitated providers in the system. This can be handled fairly straightforwardly by having a well-written-out contract that specifically defines services that shall be covered under the capitation, but it highlights something that's important. In dealing with capitations you don't want to deal with just specific services as isolated. What happens in one service area, if you're changing reimbursement mechanisms, can affect services that are not reimbursed the same way, and some shifting can occur. And another issue is that Medicare and Medicaid populations are very different from the commercial population. Most of what I've been talking about has been with commercial populations in mind, and you just need to be aware that there are some significant differences in the types of adjustments you might make to a capitation for the Medicare and Medicaid populations for obvious reasons.

I touched on this somewhat, I just wanted to make the point that capitation really is not always just a theoretical calculation. Coming from a consulting firm, I felt like I had all the right answers; you could give me the numbers, and I'll calculate what your capitation should be. After working for an HMO, I was completely shocked and horrified to find out that HMOs don't even consider that in going to the providers in negotiating capitations. They went with the number they thought they could get away with paying, and only in the background did they consider their experience and analysis in deciding that capitation actually did make sense, but that was an afterthought rather than the forethought. Regardless of how capitations are set, both the providers and payers need to ask

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themselves some questions and be familiar with the issues involved. Providers must be able to determine the adequacy of proposed rates. They may not be familiar with the thinking of a PMPM basis and might need to understand what a PMPM means in terms of revenue and the ability to stay in business. Also, many physicians may not yet have their own data monitoring systems. I think this is starting to change with physician hospital organizations (PHOs) and integrated delivery systems, but for the most part, there's a severe lack of information on the side of the providers, and that needs to be dealt with.

Payers must consider capitation rates in light of premium levels. What I suggested to an HMO that I worked with is consider the capitation that you're negotiating in light of the premiums that you're charging. Make sure that they make sense and are in line with your anticipated loss ratios.

MS. BYRNE: I'm going to talk about a few different segments of capitation issues. Just to apologize in advance, it's impossible not to be somewhat redundant, while trying to be comprehensive. First I'm going to talk about capitation and the provider and then follow up with some issues of risk, some administrative issues and structural issues and then some conclusions.

When you think about the provider and capitation, think about why is the payment shift moving to capitation, and why is it working? Physicians ultimately control the delivery of health care. All the cost containment guidelines in the world aren't going to change that. The provider thinks that the payers are doing this to win. Payers are going to collect these huge premium dollars and pass the risk to them. The patients are going to win because they'll have lower cost, and they'll have higher quality care. Well, what about me, the physician? How am I going to win? It has to be a win-win situation for everybody. In order for that to happen, the physician has to be aligned with the goals and involved in structuring the arrangement right from the get go. If you come to them after the fact, they're not going to be able to understand the arrangement, and they're never going to trust it. There's a great deal of distrust out there right now, and the only way we'll solve that is to become partners with each other.

The next point is that there needs to be decision makers. Physicians need a governance. They need to believe and have faith in the people who are representing them. They need to first buy into the strategy and the goals, and then have someone that is able to make the day-to-day decisions. Right now this situation is holding back progress because providers are out there on the battlefield. A huge culture change is needed on the part of providers. They're going to have to change their perspective from being a source of revenue to a source of cost. This is very different from the old fee-for-service mentality where, for every service they performed, there was a fee. Now they represent a cost. They need to get the cost out of the system. The marketplace has spoken. They aren't going to pay any more dollars, and the payers have already shifted to capitation. So, now is the time to figure out how we eliminate that cost, and how are we going to control it so we don't see significant double-digit trends like we have in the past.

The bottom line is physicians must become total care managers, not just a reactor to symptoms. They must see the patient as a whole. Different populations are going to require different approaches to lower their cost. For example, take Medicaid. They need appropriate access to care, and they need to get it when they need it and not in the

emergency room when it's too late. There are several elderly people in the Medicaid population, and Medicaid does not allow much flexibility for caring for the elderly. They make you spend down to get rid of all of your assets, and then the only way you can get care is to go into a nursing home. There's no alternative like adult day care where real savings could be made.

Then there's the Medicare population, they get lots of care. They actually get too much care, so it's very inconsistent. For every symptom they want a different provider, and there isn't any kind of care continuum. One way that HMOs are saving some money with the Medicare risk population is at the point of enrollment. They are called in for what is called a brown bag survey. Enrollees march in with a brown bag full of all their prescription drugs. HMO providers give them a checkup, and figure out the best future course of treatment. For the commercial population, providers just have to keep us well, keep us in our healthy lifestyles, and provide us with more patient education.

There are several other general cost reduction strategies. A very popular one is clinical pathways. This is a continuum of treatments that is designed by physicians to generate the best outcomes. They've become very popular for such situations as joint replacements, some forms of cancer, pulmonary conditions, and some vascular conditions. Also, alternative treatment has become a very big cost saver. Over the last year, patients spent out of their pocket over \$14 billion to go for alternative treatments. This includes alternatives like acupuncture and homeopathic kind of medicines as an alternative to chemicals. And early intervention, in order to be a cost saver, requires early detection which means regular care and patient education. Finally, there's integration of facilities and services. We need this health care delivery system or this machine—the hospitals, the out-patient facilities, the radiologists, the laboratories, the physicians, the surgeons, and the pharmacies—to be working in sync.

Just to give an example of what prevention and early detection can do, consider the case of somebody with breast cancer and the elimination of the need for one bone marrow transplant which can easily cost \$200,000. That can pay for 4,000 mammograms at a cost of \$50 each. Also consider the elimination of one premature baby with problems, which can easily cost \$400,000–500,000. This could pay for 100 normal deliveries at a full cost of \$4,000. Also going hand-in-hand with early detection and early intervention is targeting specific diagnoses such as diabetes, asthma, and high-risk pregnancies. Diabetics need to do regular checkups of blood sugar and have eye checkups to prevent future problems with kidneys and loss of vision. Asthmatics need to stick to their prescribed treatments of care to not end up in the in-patient setting with a bad asthma attack.

Of course, to accomplish all this, the providers need data. Don't we all? Here they need it to know what is the best treatment, and, given the treatment, what is the probable outcome. They also need to know the patient's history. If they're going to treat the patient as a whole entity, they need their total care history, and they need to have easy access to it so that it's at their fingertips. Then if they're going to have to choose between alternative treatments and the probable outcomes, they need to know what the cost of those treatments is.

The bottom line is that physicians need to be business people as well as medical care providers, and they're going to need help. Much of that help can come from us. They're

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going to need support to review and analyze the proposed contracts, and then they're going to need a great deal of help to perform the cost and benefit analysis needed to match up the treatments and the outcomes. For an example of how they need our help, once a provider is capitated, they may be liable for excess and/or unmanageable risk. Unmanageable risk occurs when their capitation agreement covers services they just can't provide. It's not within their capability, such as out-of-area emergency care, or a very specific specialist that's not within their group, like some of the pediatric subspecialists. One way to mitigate that is to subcontract for that kind of service. This is oftentimes called a satellite office where they pay part of their capitation to another group. Another way to mitigate the risk is to simply carve it out of the capitation agreement such as in an out-of-area emergency. Or, they may choose to acquire the capability, such as adding a burn care facility to an acute care hospital.

Excess risk occurs when you are truly liable for what could be potentially catastrophic claims. Imagine that your provider group has just been capitated, and your patient is pregnant with quintuplets, or there are several heart transplants going on. This could cause a severe financial loss, which could turn into an insolvency situation. One way to mitigate this risk is to have, within the capitation agreement itself, stop-loss provisions, which at a certain level of financial loss or cost will kick in with additional revenue dollars. An alternative approach is to purchase a provider excess policy. The advantage of this is that it can cover your excess risk for all your capitation agreements and for all of your different payers under one policy. One thing you need to be careful of in this situation is that the policy or stop-loss provision is covering the true adverse risk and not covering them at a level that will allow them to maintain a fee-for-service environment which will do nothing for changing practice patterns.

There are several structural and administrative issues under capitation. It can be a nightmare, and it is in many situations. Let's just start. First, there's the contract. It needs to be clear. And just to name a few provisions, it needs to be clear on exactly what is covered and it needs to be well-defined. You need to know what the termination provisions are for the payer and the provider. If this isn't working, how do I get out of it? And what are the stop-loss provisions and how do they work, if there are any? And who's going to maintain and communicate eligibility? When that person comes through the door, how do I know they're under the capitation contract? How do I know I'm getting paid for everyone that is covered under the contract? What about referral procedures? What are they, and how does it get processed, and how fast do they get processed, and what do I need to do? Is it paper? Is it electronic? What are the requirements for encounter data reporting? These are critical points to consider.

Structuring a capitated healthcare delivery system requires a geographic analysis of the area. Before, when it was only primary care physicians (PCP) who were being capitated, enrollees would just choose one at the point of enrollment. You were immediately mapped to a PCP, and the physician got paid for you, but now as we expand this, and as we capitate large specialty groups, or large multispecialty groups and the hospitals, how does it all get linked together? Do the PCPs get linked to a particular radiologist, to a particular group of orthopedic surgeons? If we've solved that problem, how do we map the physicians to the hospital, particularly if there are several in the area, and the physicians have admitting privileges at them all?

Another large problem can be claim adjudication for a network where you have both capitated and noncapitated providers. Capitated providers may perform services for non-capitated members. If people are living in rural areas, they may not be mapped to a capitated provider but may be referred to one in the city. What does the doctor do? How do they know to submit an encounter form or a claim? And once it's submitted, how does a payer know whether or not to pay it? Capitated providers may still perform some services that are still paid fee-for-service, items that they just really don't want to be at risk for because they have no control over what the cost is, like the biological serum for immunizations. Some capitation arrangements may have long effective periods, such as three years, within which there is the potential for blockbuster immunizations to come out on the market. An example is the entry of Hepatitis B immunizations onto the market and newly emerging guidelines to vaccinate all children.

Leakage is always a key issue under capitation, especially at first. Before providers are truly educated and working in sync, they will still be using their old referral patterns and may refer members out to noncapitated providers when there's a physician already getting paid. This means you're paying twice. You're paying the capitation, and you're paying the fee-for-service claim. If not dealt with, it can wipe out any savings and even go over, costing you more under the capitation arrangement. This means provider education, patient education, and possibly some firm processes in place to deny the claim when it has been improperly referred will be critical. This sort of goes hand-in-hand with the problems of point-of-service products in a capitated environment. Here, opt-out can be a system and/or data issue. There are two, basic ways to handle it. You put the doctor at liability for the opt-out. If you do that, how do you capture that opt-out claim? How do you know it was opt-out? How do you map it back to the capitated provider? How do you bill for it and collect the dollars? Alternatively, you lower the capitation, and you pay it yourself. But now the key is how do I convince the provider the amount by which I've lowered the capitation is appropriate?

The answer is data. Data is more important than ever. I probably don't need to emphasize this to a bunch of actuaries, but it's the truth. Everyone wants it. Employers want to know what they're getting for their dollars, especially if they used to be experience rated under a fee-for-service system and now it's fully capitated. They want to know where the dollar was spent, and what was the quality of the care? Providers want to know whether they get their fair share of the revenue dollars. Who got paid what, and what did they get paid for? In order for them to be in sync with it, they need to have trust that everyone's being paid appropriately. That means the payers need to know the information so they can design equitable allocation systems for capitation dollars. You've probably heard of percentage of premium. This is along the same lines. The aggregate dollar has been set. It has been set by Medicaid and Medicare.

How do I split it up and allocate it to the hospital, the facilities, the different specialty groups? Clearly, providers need the information so they know how to manage the cost. Where are my resources going to be spent, and what are those adverse risks that I need to deal with in some fashion? Our customers want comparisons. Our government wants comparisons. As network developers, we want comparisons because we want the most efficient and high-quality providers in our networks. Employers want a comparison of the value of various benefit plans. What is the value of this plan compared to the next? I can honestly say I've never heard anyone say, oh, please, no more benefit relativities, I don't

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want to see it. They want to see it all the time. What do I save if I change my copayment from \$5 to \$10? How much do I save if I change my copayment on an ambulance drive? They want that kind of detail.

I would also like, for purposes of being comprehensive, to raise some legal issues. I'm not a legal expert, but I know that if you are involved in helping providers to form capitation arrangements, you need to get a legal opinion from someone who is qualified. This is critical. To begin with, there may be increased malpractice liabilities because of the perception that there may be an incentive not to provide care. To somewhat mitigate this situation, you'll need measurement tools for patient satisfaction, for quality, for outcomes and for utilization counts that are much better measurements than those that existed under fee-for-service, to prove that you're providing quality health care.

There may also be several antitrust issues. If providers are forming into a group, they must be a legitimate joint venture. They can't form or even have the perception of forming a cartel, or a boycott, or to form some kind of monopoly. And they need to be aware of applicable insurance regulation issues. Regulations may be limiting the amount of risk providers can accept. There may be licensing requirements, and we all know there are now risk-based capital (RBC) issues.

Finally, nonprofit hospitals might lose their tax-exempt status, and they might lose it retrospectively, particularly if they are the conduit for payment to physicians. If they're taking in the capitation dollars, and they're passing on the money to the physicians, especially if there are bonus and incentive payments, they could easily lose their tax-exempt status.

So, what are those keys to success? I have seen many lists. I've chosen five that I think are critical. As I said before, physicians' involvement and alignment with goals is critical. It has to be a physician-driven arrangement. Second, it has to be community focused. Capitation is as much a philosophy as it is a payment mechanism. Here is the money. Now, how do I give this community care? It's a population-based analysis of the health status of the community. It's an economic analysis. What can they afford? It's demographic. It's geographic. Where are the resource needs? Third, there needs to be management of cost-effective health care and management of those risks so we don't have providers going insolvent. Fourth, there needs to be clear and understandable allocation of the dollars and incentive payments. I've heard the term "black box" used once too many times. Finally, and just as important as anything else, are the management information systems, not only to measure the quality and the cost but to give providers the clinical information they need to keep us well.

So, what does the future hold? We've seen integration happen—vertical, horizontal, and inside out. It's all over the board at this point in time, and we can be a big part of it. I hope we are because they need our help. There are several opportunities for actuaries in the dynamic health care environment, such as clinical medical cost analysis, where knowledge of medical coding, clinical conditions, and outcome projections is required to do this kind of analysis. One tool that's being developed and expanded is decision support databases. These are systems where, given the condition of a patient, the symptoms and certain variables, it gives the probable outcomes of various treatments to help providers in treatment decisions. There's also another expanding methodology. It's called prediction

technology. This is where the population-based analysis is performed of the community in order to figure out what kind of claims are going to occur. What are the health problems out there in the community? And once that's known, we can figure out where the clinical resource needs are, and then what the optimal utilization patterns are that need to be achieved for this particular community so that I, as a physician or a hospital, can be profitable under capitation. For example, in Salt Lake City they have a much higher maternity rate than some other areas of the country. Given that piece of information, it doesn't take a rocket scientist to figure out you'll need more obstetrical support. The point is that it is the community information that told you of that particular resource need.

Providers are also going to need our help to analyze proposed capitation contracts and their financial status. What are the providers capital needs? Can they survive under the proposed capitation contract, given what they think they can achieve for optimal utilization patterns and the risk connected to services covered under the contract? There are needs associated with regulatory compliance, licensing, filings, and RBC. There's also a changing role or at least a changing emphasis for HMOs. In the past they were perceived as an entity that controlled care, that would lower the cost. It worked for a while, but under capitation it's up to the provider. So, that role has been transferred. Now the provider can expand upon some of its other attributes such as distribution. It can perform the marketing. Many providers don't have the capital needed to get their groups going. HMOs could provide the capital. They can do credentialing to make sure that the providers meet quality standards. HMOs can also perform administration of the capitation arrangement and allocation of the capitation dollars.

In the future, facilities will probably have to close or at least be recycled into long-term care facilities; it's going to happen. Also, in the current marketplace, there's a glut of specialists. The number of specialists will have to decline. In fact, they're now going back to school for what is called PCP retreat. They're going back to school to become general practitioners. The future also holds, as we're already seeing, consolidation of delivery systems.

MR. THOMAS D. SNOOK: On the issue of utilization statistics and utilization data for calculating capitation rates, one of the things that I don't think I heard either of you mention but kind of touched on is the way that the degree of health care management, as it were, will influence utilization and capitation rates in the health care delivery system. By degree of health care management, I mean if you think of health care management as a continuum between completely unmanaged and the best you could possibly be, health plans fall all along the line from the West Coast HMOs to some of the less well-managed plans. As you get better managed, not only does your overall level of cost go down, but the mix of services changes greatly; there's primary care versus specialists, amongst the specialties themselves, professional versus facility charges, hospital in-patient versus out-patient, or even hospital versus ancillary providers. So the warning there is that when you look at some of that historical data that may be based on a less well-managed or even unmanaged systems, that may not be fully appropriate for pricing on an ongoing basis when your health care delivery system is changing.

MS. BYRNE: That is absolutely true, and you'll hear many people say, in this situation, that you can't simply look behind you to predict what is going to be in front of you. I would just like to add that is why we need to become partners with medical care providers.

CAPITATION ISSUES

They can help us understand, when you look at the health status of a community, exactly what are the resources needed to provide quality care to that community. This can come in the form of analyzing, for a given community and particular characteristics, what is needed for full-time equivalent providers to cover the population? And then decide, based on what you need for physicians, what is needed for facilities. You can then factor in what is needed for physician compensation from their W-2 company, plus the overhead head cost of their practice. You need to look at the fixed expenses for overhead, the capital structure, and variable costs at the facilities. This is an alternative approach to trying to get at the bottom line for the kind of revenue dollars you'll need to run a profitable system.

MR. DALE A. RAYMAN: That kind of answers part of this question as well, but is capitation just a transition to something else that'll be here in the very near future as far as a reimbursement mechanism?

MS. BYRNE: I know some people who truly believe in totally salaried systems, health care delivery systems will ultimately be owned by large entities such as insurance companies, HMOs, or by the providers themselves, but they will simply be on a salaried basis. Then it becomes an exercise in enrollment projections, what is the ultimate capacity the system can handle versus the required level to break even. The Netherlands has a perfectly well-running system in which employees just get paid on an hourly basis. It is possible that health care systems might go from capitation to simply being paid on a salaried or an hourly basis.

MR. CARY: Is this a transition to something else? I think one of the things that came up in all the talk and attention on health care reform is that with capitation you might take an initial hit off of fee-for-service cost, but then trends continue at historical rates. I think whatever system we end up with in the future, whether it's under an organized reform system or done in private industry, it is going to be a system that concentrates on the increases as well as the absolute level of cost, and if capitation is able to do that, it could very well be the tool that we end up with, but it's hard to say.

MR. THOMAS FERGUSON: I get the impression that you've been talking about community rates for capitation. How big, in your opinion, does an employer have to be to negotiate that employer's own capitation level? I've been a self-insured employer. I like the idea of capitation. I think it will help control costs. But I have a low-cost group, and I don't want to pay as much as a high-cost group.

MS. BYRNE: In terms of membership I would hope providers would require say 2,500-3,000 employees, unless they're being put in with another group of members that's capitated already. To capitate a health care system, it is best to get up to 10,000 members in total, including employees, their spouses and their dependents.

MR. CARY: That could depend heavily on trying to determine why the costs for that employer are lower. I mean my answer to that was going to be, at the very least, a thousand employees, but certainly 2,500 or greater would be much more credible. It depends on the mix of that group. Is it year after year of good experience or three good years out of ten years? It's very situational.

MS. BYRNE: There may be an alternative to moving directly into capitation. In particular, if you are an employer negotiating directly with providers, you may start with a global budget that is like capitation in that it essentially says to the providers, this is all the money we have to provide care. Then you can do risk-sharing, such as a two-sided corridor where if medical costs go over, you both pay a portion of it, and if costs are under, everyone wins. This is the next step toward providing an incentive to control cost, before moving toward full capitation. This may be an alternative for a smaller employer.

FROM THE FLOOR: If you're going to do something like that, you have a complex system of accounting to the providers who they're getting capitation for; you're keeping each contract separate and risk-sharing with each employer. You need a very good data system.

MR. STUART D. RACHLIN: How do you handle the large employer that is still fully insured but who also has good experience and doesn't want to pay that same capitation rate?

MS. BYRNE: That is something that I know many insurance companies struggle with; employers always think they have the healthiest people. They always think they have the best experience, and if they pay capitation, that means that they're subsidizing all those other sick people out in the world. The only way you can show them otherwise is to have the data. But I also know that credible data is lacking to prove with any certainty, that they are actually going to save as well. They may not win as big as some small employers, but if you have the data, and if you can show them, under fee-for-service, what they're paying now, and what they will save under capitation, then you'll have a story.

MR. CARY: And that's also an area where employers are starting to take some initiative to change things; they're establishing their own data tracking and approaching providers directly and just bypassing the insurer all together because of the fact that they believe they have more select experience and want to take advantage of it.