RECORD, Volume 22, No. 2*

Colorado Springs Spring Meeting
June 26–28, 1996

Session 4PD
Utilization Review Issues

Track: Health
Key words: Pricing, Research

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Panelists: BRENT LEE GREENWOOD
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Recorder: WESLEY S. CARVER

Summary: How can a managed care plan know whether it is doing a good job on utilization review? Is there room for further reduction in utilization? How should a managed care plan prevent underutilization? How does new legislation affect this function?

Mr. Robert H. Dobson: Our first speaker is Zoe McCarthy. Zoe is an ASA and has spent 12 years at Trigon Blue Cross/Blue Shield in Richmond, Virginia. The last one-and-a-half of those years have been in the health and wellness area. She's going to be our first speaker, and the topic will be "Measurement Systems," in particular one that Trigon has installed recently. I'm a consulting actuary with Milliman & Robertson (M&R). I'm in the Tampa office, which is now one year old. I've been with M&R a little over 11 years. I'm going to be covering all the points that nobody else wanted to cover. That's what the moderator gets to do.

Brent Greenwood will do our wrap-up. He's going to be looking into the future and telling us where he thinks utilization review is going to be going. Brent is practice manager with the Towers Perrin IHC practice in Atlanta. He has been with Towers Perrin 18 years, all in the managed care unit. He has experience in actuarial management issues of HMOs, PPOs, other managed care organizations, as well as in Medicare and Medicaid. He also was one of the eight actuaries chosen to audit President Clinton's health care reform proposal.

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I just wanted to make a couple of introductory remarks before I turn it over to Zoe. In a recent *Newsweek*, you may have seen the article on HMOs showing a doctor with scissors implying cost-cutting. I always think it means a great deal to our business when the issues that we're worried about make it into the popular press. One of the things I asked the panelists to do for this session was to try to come up with some controversial things because we have a relatively small audience. We'll have some time for questions and answers at the end, and I'm hoping, on the unlikely chance that we don't say anything you disagree with, that you'll come up with some things that we disagree with so we can have some controversy and some discussion.

One of the things, for example, that always gets a good fight going at my house is to talk about maternity stays. The issue really comes down to one versus two days on a normal delivery. My wife, who happens to be an RN, will talk about how a mother who has other kids at home needs to stay in the hospital and rest longer. Or if it's her first child, that she needs to be trained more, especially if she doesn't have enough education. I, of course, take the position, that's all fine, but it doesn't need to be done in an expensive hospital; it could be done through home health or subacute care. My wife did have a short experience as a utilization review nurse for an HMO. She worked there about a month before she'd had all she could take. She was working with a Medicaid plan, and, of course, most of the calls were coming in from emergency rooms. A couple of my favorites that she told me about were a patient who presented with a cold and a 99.4 degree fever, and another one who presented at the emergency room for his check-up.

The thing that really bothers me is that all you read about this topic in the popular press seems to imply that we, as insurance companies or managed care organizations, are saying that people can't get the service. I don't think anybody's saying that. We're just saying we're not going to pay for it or it won't be covered because we don't consider it medically necessary. Nobody seems to pick up on that distinction. So that's one of the things I'd like to see us talk about in the question-and-answer period, if nowhere else. I didn't introduce our recorder, who is Wes Carver. He's an FSA at Trigon. Zoe was kind enough to recruit him.

Ms. Zoe M. McCarthy: I will present a utilization tool that we affectionately call claims analysis reporting system (CARS). My objectives are first to demonstrate what the CARS tool is and, second, to discuss how CARS can be used to evaluate utilization review efforts.

As we implement more and more medical management programs, we need warnings to help us identify the problem areas where utilization does not compare well with internal or national norms. We need indicators that will help us to

monitor the success of when we have implemented major programs. Now, we don't use CARS to measure the success of a particular program, but we can get a good indication of whether the programs are working or not overall. Finally, we need to be able to translate our expectations for utilization reductions into dollar reductions for financial budgets. CARS can help us meet these needs.

So what is CARS? It produces a set of cost and utilization measures. The database and model were conceived, designed, and developed in the Trigon Blue Cross/Blue Shield of Virginia Actuarial Department in 1992. For the first year CARS was used mostly in our department. The rest of the company wasn't too interested. Four years later, we can't produce these reports fast enough for our internal and some external customers.

Looking at utilization review is one of the many uses of CARS. The format and what we decided to include in this report have been revamped several times as we learn more and more about our data. We're very proud of all the information we have squeezed onto one page in a functional format. Maybe this will be my controversy as it's possibly not a readable format, but it's a functional format. There are a lot of tiny numbers on there, but it really is helpful to have it on one page. There are five major sections on a standard CARS report. We have places of treatment, services, cost and utilization measures, enrollment, and reporting options.

The places of treatment are at an inpatient facility and partial day facility. Under partial day, we cover partial days in the hospital for mental health and for substance abuse. We also have outpatient facility, professional provider inpatient, and professional provider outpatient. Now, if you'd been looking at these CARS reports over time, you would have observed an increase in the outpatient percentage and a decrease in the inpatient percentage as we shifted inpatient services to the outpatient setting. The categories of inpatient services are based on patients' primary diagnoses for services.

There are three sections that show the services under outpatient facility and inpatient and outpatient professional provider places of treatment. These services are based on the procedures performed. Except for a couple of services, the services are the same for all three places of treatment in those next three sections.

The evaluations and management services are very different across places of treatment. For example, hospice is found only in the outpatient facility. Newborn care is found only in inpatient professional provider. And preventive medicine is found only in outpatient professional provider. I think Bob is going to talk a little bit about home health, which you can find in the outpatient professional provider.

The cost and utilization measures that are the bulk of this report. The normal inpatient utilization measures are reported by days, admissions, and average length of stay. Days and admissions are reported on a per-thousand-members basis too. For admission count, if a patient goes out on a furlough for three days or less, we combine the days before the furlough and the days after, and put it into one admission. We don't count two admissions. Also for interim billing in hospitals, we don't want to count 12 admissions because a hospital interim bills each month. So we go back and pull those together and count them as one admission, and each month this combining or rolling of admissions is refreshed looking at 12 months of paid data.

We have three kinds of utilization for the non-inpatient facility places of treatment. Encounters and incidents may be best described by an example. Sally went to a provider and had two surgical procedures performed and three diagnostic tests all on the same day and at the same provider. We would count all five of those procedures as one encounter because she had them all at the same provider on the same day. But she had two different types of procedures. She had surgeries, and she had diagnostic tests. Thus, we would count both of her surgeries as one incident and her three diagnostic tests as one incident. So we'd have two incidents for that one encounter. For drugs, we count each doctor-written prescription as one.

Next, let's look at enrollment. A count is captured for each policy or member for each month the policy or member is active. Then it's summed, and the sum is divided by 12 for the average policies or members exposed in the segment. We capture enrollment not only for the total but for each optional coverage, such as maternity, drug, and dental, so that the unit measures for each of their segments will be based on the people who had the coverage. We are still researching correct mental health and substance abuse enrollment, and we'll add that when that becomes available.

Finally, let's look at the reporting options. For standard reports and ad hoc analysis, we have flexibility in what kind of data we pull for the reports. Reporting options are areas in which our customers (and our customers are mostly internal customers, people in medical management, people in corporate finance, and people who are building networks) can select what data they wish to see.

For our discussion let's look at the example of automatic bank check plan segment, which could be a line of business. It could be a group, a region, a strategic business unit, or even a hospital if enrollment means patients instead of members or policies. Then we would only report the facility information. CARS is a system. It's not a report. We have a lot of flexibility there. For each segment we have XYZ network.

You may want to look at the measures by PPO, indemnity, point-of-service, or HMO networks, but the split doesn't have to be networks. It could be some other split that the customer desires. In fact, there could be several other splits. This is not just a report; it's a system.

Let's look at the time period. We have all the data for services incurred in the year 1995 and what has been paid through March 1996. The customers tell us what they want. Another option would be to see claims paid in 1995 and put no restrictions on when they were incurred. It's up to the customer. There's the level of claims desired. The requirements for this particular CARS report were to include covered charges that were not reduced for the deductibles, copayments, and co-insurance paid by the policyholder. As another option, the requester could have asked for the claims that the company paid after benefit design. So depending on what the customer or what we (we're our own customers many times) are trying to do, we can request levels of claims, the dates, and the segments we want to look at.

Let's look at how CARS can be used. We usually produce CARS reports for multiple time periods and look at trends. Table 1 is a streamlined inpatient facility example from two reports of two years .

TABLE 1
EXAMPLE: TRENDS

	Days per 1,000	Admissions per 1,000	ALOS (Days)
Medical	4%	17%	–11%
Surgical	–3	11	–10
Maternity	0	9	–8
Mental health	–51	–57	6
Substance abuse	–58	–67	4
Subtotals	–8	4	–12

The medical and surgical percentages might be a warning. The decrease in the average length of stays (the –11% and –10%) are matched by an increase in these admissions: 17% and 11%. This was some real data. Are providers increasing admissions to counteract the progress we have made in reducing our average length of stay with all our case management programs? What's going on here? As you can see, the reductions in the average length of stay for surgical more than offset the increase in admissions. We also see some reduction in days per thousand members at –3%. But the increased admissions more than offsets the reduction in average length of stay, and there was an increase in the days per thousand members of 4% for medical. For maternity, more births (which we have no control over) were offset by reductions in the length of stay. This resulted in no increase in our days per thousand members.

Finally, strict management brought in great reductions in mental health and substance abuse admissions and days. As you can see, the remaining patients were the ones with the more severe health problems, and the average length of stay increased. We are now working on making the CARS reports feed an interactive model so that management can create future "what-if" scenarios. The hospital negotiators can supply their projections of hospital costs per day or per admission and people in medical management can supply projected reductions in days or incidents per thousand members as a result of their utilization review programs.

Once these inputs flow through this model, we can see whether the bottom line results, on the bottom of the CARS reports, agree with the financial targets. When they don't agree with the financial targets (sometimes set by more corporate types of folks that aren't in the nitty-gritty of this), this alerts corporate management to look for other ways to meet financial targets.

Mr. Dobson: That was very interesting. We wanted to balance this panel and have somebody from a company that would give you some real information to go on. Consultants will tend to talk in more generalities, as you probably know, but Brent and I are going to try to be as specific as possible.

I'm going to start by talking a little bit about what an optimum model is both from a delivery standpoint and the actuarial standpoint. After that I'm going to say a few words about the M&R Healthcare Management Guidelines just so people understand what they are. I'll talk a bit about measurement and then the topics that nobody else wanted to talk about—underutilization, legislation, and regulation. Finally I'll make a couple of comments about the future before turning it over to Brent who will talk more about the future.

When we say the term optimum model, sometimes people think of that in terms of what the delivery system model is going to look like. Sometimes people think of it in terms of an actuarial cost model that is set at optimal or very low utilization results. I guess we've tried to make this distinction when we talk, particularly to provider clients who don't understand a lot about the actuarial work. The point I always try to make is an actuary can assume anything that he or she wants to in terms of utilization, but we're not going to be the ones out there managing the care. Somebody must go out and manage the care and actually make these things happen. It's not as if you can convince me to put an assumption in your pricing that's going to make it turn out to be true. One of our utilization review nurses in one of our offices that I work with says that actuaries tell you where you need to be from a competitive and utilization standpoint, and then the nurses and doctors that

work on the utilization side go out and tell you how you can get there or what you have to do to get there.

One of the key things we talk about with regard to this is what we call infrastructure, and I'm not going to say much about these, but this is actually a list of needed things from a research report. It's geared to helping primary medical groups understand the kinds of things that they're going to need to get into and have available if they're going to effectively manage care. Most of you who would be coming from an insurance company standpoint would be familiar with the need for all of these things, but you'd be surprised at how much some of the provider groups don't think about it before they get into it.

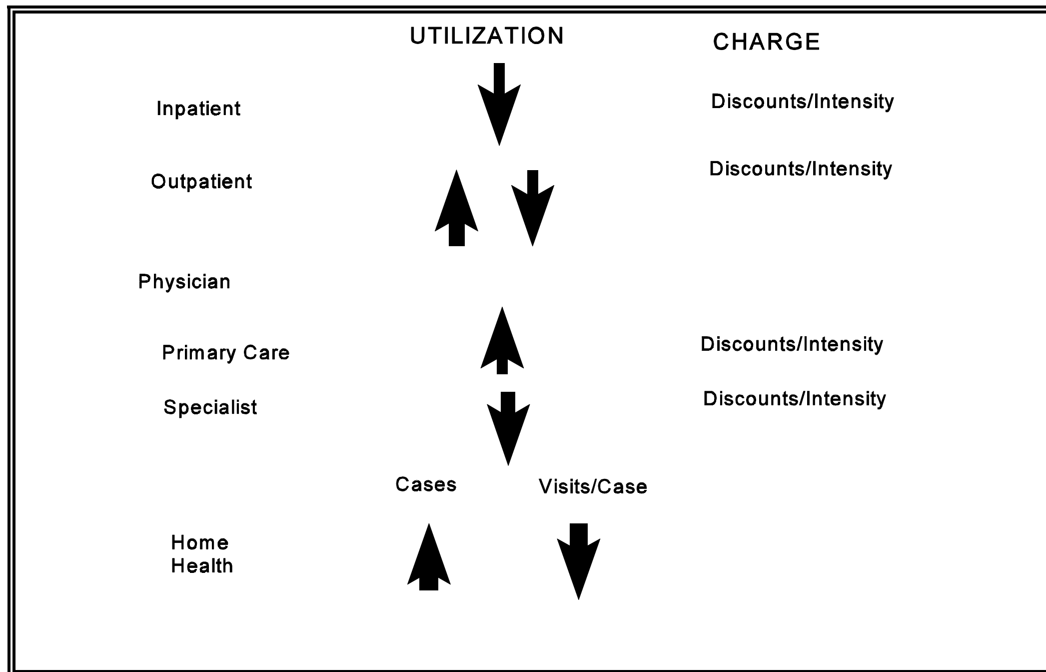
From the infrastructure standpoint it's really a matter of having the systems—by systems I don't just mean computer systems, I mean any type of systems—and the ability to be able to manage the care. We also believe, of course, that financial incentives are very key, though when I get to the underutilization section and the regulation and legislation section you'll see that the financial incentive may be coming under increasing scrutiny. It's very important to make sure financial incentives are lined up properly and fit in with the infrastructure.

There's a formula I use with provider groups to try to unlock the actuarial black box. I tell them the actuarial part is really simple. You have one simple formula you have to know. Utilization times charge divided by 12 gives you per member per month. Of course, if the utilization is expressed in terms of utilization per thousand, you really have to divide by 12,000. I usually lose everybody by then, and I go on to point out that there are lots of different impacts on the utilization: age, sex, area. These are all things that, as actuaries, we're familiar with. There are adjustments on charge, but I do hope that by making people see that the basic arithmetic is quite simple that there's some meaning in that.

Chart 1 is designed to show the direction in which most of the movements are going as we move to an optimum model. The first area, the inpatient, is fairly obvious. Inpatient utilization has been going down. The effect of managed care is to decrease that. On the charge side we have two effects that counteract each other. One is that you would expect to be getting more and more favorable provider discounts as we go forward in time and get to a greater degree of health care management, but going against that is intensity. It increases as you reduce the days, leaving people who are sicker and who need more resources. So the charges tend to go up. Of course, this can vary depending on what your financial arrangement is with the hospitals. We work on a number of cases where the hospitals give per diem arrangements or amounts per day that would be billed. The tricky part

about building that into the actuarial cost model is that often what the per diem is for medical or surgical will be subject to some sort of outlier provision.

CHART 1
DIRECTION OF UTILIZATION



Claims above a certain amount will go to some percentage of charges, and, similarly, there's sometimes a separate charge level for the intensive care unit (ICU). As you'll see later, we believe that more and more of the care is going to be intensive care. Therefore, the mix of those things can change. In fact, we had one client that ended up with over 50% of their days as ICU as they managed the care tighter and had a per diem arrangement with the hospitals. Some of that may have been gaming on the hospital side. I'm not sure.

On the outpatient side we see the arrows going in opposite directions because clearly you do more services outpatient as you drive things from the inpatient. That's the up arrow. At the same time we want to be managing the outpatient care better, so that's the down arrow. The actuarial trick is figuring out how those two balance in the particular model that you're looking at. You want provider discounts, but you expect greater intensity. It was interesting to me as I thought about it, when I put this chart together, that the intensity in all of the cases goes up. You'd think maybe there would be some area that wouldn't, because what we're really doing is trying to keep some people out of the system who don't really need care. But as you try to get the primary care doctors to do more, or do some things a specialist did, that drives up their intensity. As you take services away from the

specialists who were less intensive, specialty intensity goes up. So it seems to be always an increase, though that is somewhat counterintuitive to me at least.

You expect primary care utilization to go up as you drive more services there. Now, this doesn't mean you want unnecessary office visits, but you do want the primary care doctors doing more than they did in the past and the specialty care going down. And then, finally, my favorite topic, as Zoe said, is home health care; it's a very small percentage in most commercial cost models right now but one we expect to grow a lot. Actually, it's already significant in Medicare models. What happens in home health is you expect the cases to go up, but as you manage the home health care itself, you expect the visits per case to go down. Again, in terms of total visits per thousand population, it's a mixture, and you can't be sure exactly how it'll go.

The result of all of this is that there are many variables and much judgment required. Over the next few years, we're apt to see a lot of variation from plan to plan and even from actuary to actuary in what we view as the optimum model, but those are some of the considerations.

The Society certainly warns people against doing anything that can be construed as an advertisement, and I certainly don't want this to be construed as an advertisement by any means. I believe that the M&R Healthcare Management Guidelines are being used more and talked about more. I thought it would be important to say a few words that I view as more educational about what they are and, even more importantly, what they are not. At our M&R Health Forum we recently had a representative from the American Medical Association (AMA) on a panel with Dr. Dick Doyle, who's the father of the M&R Healthcare Management Guidelines. The guy from the AMA kept saying, well, these are actuaries putting out these things, and Doyle must have said a hundred different times, no, doctors did these, not actuaries. So that's one important point. They really date back to 1984 when Dr. Dick Doyle was with a hospital system in San Diego and started developing them. Some time in there he started working with Dave Axene and Dennis Hulet, actuaries in M&R's Seattle office, and the result has been the Healthcare Management Guidelines. They're also not to be confused with the M&R Health Cost Guidelines, which are more typical actuarial data that you would expect to see coming from our firm.

We don't recommend that the Healthcare Management Guidelines be used for length-of-stay assignment, though they are in some cases. They're really geared to manage the care and planning proactively rather than reacting to what happens. I'll say more about that in a minute, but they are clearly concerned with the health care management, not the financing.

We also see people confused and saying that whatever is in the M&R Healthcare Management Guidelines means what types of coverages you get and how many days you should be allowed for maternity. It's not that at all. It's really how to manage the care. It's based on the uncomplicated patient. Dr. Doyle said that whenever you sit down with a group of doctors, they start talking about the complicated patient who didn't meet certain criteria; they had to keep the patient in the hospital for *x* number of days and so a shorter length of stay didn't work. To get away from all that, he said let's plan for the healthiest people, the people who use the fewest resources for any given procedure, the ones who do as well as we hope and who have no complications. So that's what the plans are. Obviously, there are going to be some who have complications and don't fit that definition. It's based on best practices and chart reviews.

The M&R doctors and nurses have done some 25,000 or more chart reviews, and that's what these are developed from. They looked for unnecessary days, and what they found was that in 50% of the unnecessary days, the situation was that the doctor simply didn't send the patient home when he or she should have. Twenty percent of the unnecessary days resulted from delays in service. You were scheduled to get a certain kind of X-ray, and it didn't happen on Monday. It happened on Tuesday. So there was an unnecessary day in the hospital. That's not quality care. Quality care is making sure you get the service on the day it's most beneficial, and you get sent home at the time you're ready to go home. In that sense, there's no discrepancy or no distinction between managed care and quality care. They've also found that the most common number of unnecessary days is one, and it results a lot, it seems, from doctors' practices of making rounds at 7 a.m. The patient has just awakened, is kind of groggy, and the doctor can't tell whether he or she can go home yet or not. But if the doctor had been there at 10:00 or 11:00, it probably would have been obvious that the patient could have gone home.

Now I want to discuss one of these Healthcare Management Guidelines. One example is what we call an optimal recovery guideline for an appendectomy with some complications. This isn't actuarial; it's medically oriented. It's really saying what things should be done for what patients on what days, again remembering that they're the uncomplicated patients. Day three says discharge with home health care for drain or wound care as needed. Obviously, if you're in a rural hospital, and there's no home health care available at all, that can't happen. Often people make arguments, like the ones I mentioned earlier about maternity. The mother needs this or the mother needs that. In a lot of cases, that can be provided through home care a lot cheaper, but the home care has to be there and has to be available. The whole idea of this is to proactively plan what should happen on every given day rather than react to what did happen. In the optimal actuarial models that we do based on this we assume some percentage of cases are complicated, of course.

So the numbers I'll show, in terms of days per thousand do assume some mix of complicated patients with longer lengths of stay.

Just to close out this section, a list of the different Guidelines that exist right now, or are due out at any moment is shown below. Many of these volumes have things other than those optimal recovery guidelines, but I didn't want to go into a lot of that. So the main ideas are that they're clinically oriented, not actuarially oriented, though there is some blending of both. They are not used to define what coverage should be, but could be used to manage the care.

TABLE 2
MILLIMAN & ROBERTSON, INC. HEALTH CARE GUIDELINES

Vol. 1 - Inpatient and Surgical Care
Vol. 2 - Return-to-Work Planning
Vol. 3 - Ambulatory Care Guidelines
Vol. 4 - Case Management: Home Care
Vol. 5 - Primary Care and Pharmacy
Vol. 6 - Case Management: Non-acute Levels of Care
Vol. 7 - Workers' Compensation

In my next section I wanted to talk a little bit about mistakes that are made in measuring utilization review results. I think I've seen more mistakes made than good systems. The system Zoe spoke about certainly looked like a good system.

I have listed five common mistakes. Within the CARS system, the user, by defining things, could make some of these mistakes if he or she wanted to, but it would be the user's mistake and certainly not the system's. Now, before I list the mistakes, I did want to mention one thing about the lack of public understanding of averages. There was somebody on the news talking about the Olympics and how hot it was going to be. He said that this particular year, there was a 38% chance the average temperature would be greater than average, and I kind of viewed that most years there's a 50% chance it'd be greater and 50% not, but maybe that's the difference between mean and median or something. He made it seem like that was big news.

Anyway, these are five common mistakes that I've seen. One that I've seen often tends to result from people who are trying to make the utilization review results look good. Their job is to sell the quality of the utilization review program. A common one is to take some past period and then project the utilization forward by using an increasing utilization trend. Then compare your current utilization to it and say that because the current is lower than the projected, that's a positive result from your utilization review program. Of course, if you're using an upward trend on hospital days, that would not be very accurate. On some things it might be. Of

course, it's always difficult to figure out what would have happened in the absence of an action you took.

A second mistake that I ran into was when somebody was taking a length of stay distribution table that was set out in percentiles and then comparing their actual length of stay to the 70%. They said they were being conservative because they used the 70th rather than using the 100th, but if their length of stay was shorter than the 70%, they were saving days; whereas, if they were greater than the mean but less than the 70th, they were actually costing days.

Another one I've seen is to attribute all of the change to actions that you've taken. In an environment like we've had with hospital days decreasing anyway, that's often not the case because maybe the days would have decreased no matter what you did. Another mistake that's easy to make, of course, is to have a different mix of business in the two cells you compare from one year to the other. And then, finally, there's the ever-popular paid versus incurred.

My next topic is underutilization. When I first saw this one I thought, well, that's not much of a topic. Why is that even on there? But the people planning the program knew more about it than I did. As I looked into it, it does seem like this is going to be an increasingly important area for people in the managed care business. It really ties into quality management programs and concerns that are coming from consumer groups about financial incentives that give providers incentives to lower the utilization. It also occurs when you have capitation reimbursement. So one way of dealing with this is to have patient satisfaction surveys where you look closely for any comments that come in about services that perhaps should have been rendered and weren't.

Another way is to monitor readmissions and other adverse events, and then have it be part of the medical review process to look for underutilization as well as over-utilization. That can involve RNs and the medical director. It's important, of course, to give feedback to the provider, and I understand some plans are actually linking some financial incentives to avoiding things like underutilization and to patient satisfaction.

What's not used as commonly but will be used more in the future would be statistical profiles—looking at the underutilization rather than just the over-utilization side.

Finally, you can do claim code screening for particular wellness services by age group, such as mammographies for certain expected age groups. You can look for specific current procedural terminology codes in the claims data. This is important

for such things as National Committee for Quality Assurance recognition and leads into the next topic, legislation and regulation. It will also become important under the NAIC model, if that's adopted, in a number of states.

There are two things I wanted to talk about on this topic. One is a California initiative called the Patient Protection Act. I don't know a lot about this other than what I've read in the press, but one of the things I've picked up on is that it's supposed to operate at no cost, that is it's cost neutral, but it's going to require a second opinion before any care can be denied, which could be fairly far-reaching. It's supposed to bar financial incentives to providers. That could be very far-reaching, particularly in the California market.

One of the ways it's going to be able to be cost neutral, given all those things that would make it sound difficult, is that they will take some fees out of the vastly overpaid chief executive officer salaries, according to the consumerists who are pushing this at least, and also some income could be really generated from mergers and acquisitions that occur in the health care field.

The NAIC draft model, another version of which was brought out at the meeting in June, deals with utilization review. It defines utilization review and a number of other things I'll show you. I will read utilization review, which is fairly broad.

> Utilization review means a set of formal techniques designed to monitor the use of, or evaluate the clinical necessity, appropriateness, efficacy, or efficiency of, health care services, procedures, or settings. Techniques may include ambulatory review, prospective review, second opinion, certification, concurrent review, case management, discharge planning, or retrospective review.

The next definition is that of an adverse determination.

> Adverse determination means a determination by a health carrier or its designee utilization review organization that an admission, availability of care, continued stay, or other health care service has been reviewed and, based upon the information provided, does not meet the health carrier's requirements for medical necessity, appropriateness, health care setting, level of care or effectiveness, and the requested service is therefore denied, reduced, or terminated.

That's my pet peeve coming in again there because what we're denying would be for payment or coverage. We never say that the person can't have the service. They always can do that.

It seems like one of the thrusts of the law is outlined in this portion:

> A health carrier should be responsible for monitoring all utilization activities carried out by, or on behalf of, the health carrier and for ensuring that all requirements of this Act and applicable regulations are met. The health carrier shall also ensure that appropriate personnel have operational responsibility for the conduct of the health carrier's utilization review program.

This seems to be designed to prevent abuses and to prevent carriers from disavowing any knowledge of what's going on because they've subcontracted it.

Of interest to M&R, because the Healthcare Management Guidelines are being used, is the definition of clinical review criteria.

> Clinical review criteria means the written screening procedures, decision abstracts, clinical protocols, and practice guidelines used by the health carrier to determine the necessity and appropriateness of health care services.

A later part says that a utilization review program must be based on documented clinical review criteria based on sound, clinical evidence. Another part that I picked up on and thought was interesting was this: "Reviewer compensation may not be based directly or indirectly on the volume or number of adverse determinations rendered." I don't pretend that this is a comprehensive review of this NAIC draft. There's a lot of other stuff in there, but those struck me as the high points.

Finally, where are we headed? I put some numbers together from another M&R research report (see Table 2).

This is one Dave Axene and Dennis Hulet did on the importance of home care, though it is a little out of date already. It shows the current unmanaged commercial population at 450 days. It defines the current optimal scenario as 180 days. I would say now that should read "recent past" because our current optimal definition is 139 days. The 140 showing there is under our latest model, but of most interest is that long-term optimal scenario of 60 days. Obviously a lot of additional things have to happen, but ten years ago I don't know if I would have believed 139 days was possible. You can see that on the over-65 side, the reductions are just as dramatic, if not more so.

TABLE 3
PROJECTED INPATIENT HOSPITAL UTILIZATION
FOR VARIOUS SCENARIOS (DAYS PER 1,000 PER YEAR)

Scenario	Under-age-65 Population	Ages 65 and Over Population
Current Unmanaged	450 days	2,500 days
Current Optimal	180 days	1,000 days
Near-Term Optimal	140 days	700 days
Long-Term Optimal	60 days	300 days

So my prediction is that every hospitalization will end up being intensive care. I mentioned earlier an HMO client that had over 50% intensive care now, but I think that eventually the acute care hospital will essentially just be what the ICUs are now. There'll be subacute facilities that'll replace the non-intensive-care hospitalization, and these will be things we have to build into our cost models that we really haven't included a lot yet. Ultimately, home health care will account for at least 10% of health care costs. I was thinking that could be low. In some Medicare models I've seen it's there now, but it has gotten that high by some abuses on the home care side. As I said, when you manage away some of the abuses in home care, you get that down even when you start using it to replace hospitalization. So those are my predictions.

Mr. Brent Lee Greenwood: What I'm going to do is use my actuarial crystal ball and kind of step into the future, but probably not too far into the future. It will be just enough in the future to give you a little idea of what might be coming down the path.

As we all know, health care is changing quite a bit with lots of mergers of these different health systems and the introduction of capitation. I think providers are becoming much more interested in the whole management of care. As these health systems merge, they have many more resources that they can apply in the continuum of care. At the same time they are looking at capitation to bring on a different type of funding as well as different incentives. As we have talked to our health care clients over the past year or so, it seems like they're taking a much more comprehensive approach to the care and utilization management rather than just concentrating on a few specific items. Essentially we've identified three components to this comprehensive care management—I will not say case management. The more appropriate term here is care management. One is dealing with the demand management, the second is utilization management, and the third is disease management.

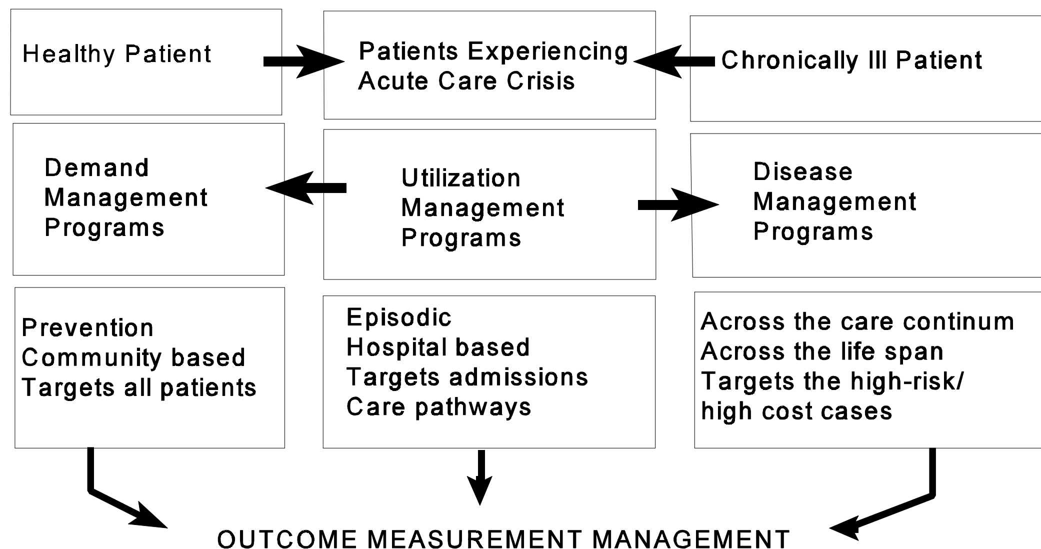
Now all these components are not necessarily new. For example, demand management has been used through benefit design primarily or through preventive services. Utilization management is what Zoe and Bob have been talking about—dealing with your precept and all of your traditional utilization management. Now we're looking at the disease management component. There is another session at this meeting that'll be dealing specifically with disease management, which is just starting and concentrating on a limited number of conditions that we're looking at. I think what we're missing as we go through all of this, is that the demand management component and the disease management component are very weak within this formula, and really where all of the concentration has been is on the utilization management component. I think, however, that with the development of these different health systems and the capitation arrangements, providers are going to be looking at things much differently than they have in the past. Also as the information systems become much more sophisticated and additional medical research is done, the managed care organizations and the health systems will be looking to expand the components of demand management and disease management.

The real challenge that faces these health systems and the managed care organizations is pulling it all together, and it must be a cooperative arrangement between both the provider and management.

One cannot do it without the other, and the key to all of this is obviously going to be the information and the transfer of information and tying it back to the measurement of outcomes. What we've done is identified these different management programs and tied them back to a patient (Chart 2). The healthy patient is more tied to the demand management type programs. Your patients that are in acute care crisis are the ones that you're dealing with using utilization management. You also have the chronically ill patients that may be candidates for disease management programs. These individual patients obviously will be going from box to box, but what you're trying to do when a healthy patient comes into an acute care crisis is practice utilization management functions that will hopefully bring the patient back into the healthy box later on. It goes back and forth, and it's the fluid dynamics that will be evolving as we go through the development of these new and upcoming management type programs.

What I'm going to do is to go through each of these components, identify for you what the objectives are under each of these management type programs, and then also tell you a little bit about programs that are already in existence. But, as I said, the real challenge that we all face is being able to pull all this together.

CHART 2
PATIENT TYPES AT CERTAIN POINTS IN TIME



I'm going to start with the demand management programs. Again, this is now one of the weak links in the whole process, but what we're concentrating on is prevention. Many of the programs that are in place are more community-based and target all insureds. Again, as we're dealing with a capitation type arrangement, this is something new. The providers now have to concentrate on a population of insureds and not just the patients presenting symptoms. What is the objective of demand management? It's to reduce the aggregate demand of unnecessary care, but in order to do that, a health plan or health system really has to understand the current health status of that population. Currently, many plans or insurance entities don't know the current health status of their population. However, I think a lot of that is changing through a lot more health assessments that are being employed by health plans going forward. So, they're trying to understand what the current health status is of their population. We also want to improve the health behaviors of these individuals. I think there have been attempts at this, but, for the most part, they have been ineffective just because you haven't been able really to reach out to that population and get them involved in some of these programs.

Also I want to stress the preventive services that most of the managed care organizations are doing now. What's more important is they are trying to get that patient and consumer and member to be more responsible for their own self-care. I always like to relate the instance of moving down to Atlanta two years ago. We were previously in Minneapolis. We had an HMO. That was the way that everybody received care, and it was great. If your children got a little sniffle, you took them in

to the doctor. The $5 copayment was great. We moved down to Atlanta. We're in an area that doesn't have an HMO. We are now subject to a $600 deductible. Well, it's amazing how all of a sudden my wife found out how expensive health care is now that we get bills that are subject to that $600 deductible. So now we go by the rule of three: diarrhea, a cough, or a temperature—they have to have two out of the three before we take them to a doctor. You kind of get into your self-care type of thing. How many of your parents were treating you when you were kids?

The other important point in demand management is that many members really don't know how to access the system, or they may know how to access the system but in an inappropriate way. As Bob was saying on the Medicaid side, most of the people in Medicaid might access it through the emergency room. Well, we need to understand more about how we might address this point, and that's why many are going to a gatekeeper type program. We're hoping that primary care physician will be a catalyst to steer patents into the right areas.

There are several practices currently in place under demand management programs. One is patient education and communication—not so much just newsletters, as you've probably heard about, but videos and self-care books. If someone is diagnosed with a particular disease or has a particular case, he or she may get a video on, for example, the advantages and disadvantages of chemotherapy over having surgery. People are sitting down and looking at these videos and trying to make their own decisions on which way they want to go. There are also several prevention and wellness programs out there with workshops dealing with hypertension and smoking. Many health advice nurse lines have been introduced where individuals can call up and get information about various diseases or how they might be able to access the system. There is also telephone-based triage. Usually when it's after-hours, you try to figure out where you could go or get advice on treatment, and if there's a certain urgent care type of facility. I think one of the important things, especially as it relates to Medicare and Medicaid, is drug compliance. This is where you try to get information on the drugs that those individuals are taking to see whether those drugs are conflicting with one another or possibly if there are other alternative drugs that might replace their cadre of red, blue, yellow, and pink pills.

Finally, we're getting into member needs assessment. I think this is where we're seeing much more advancement. It may not be a formal member needs assessment, but it may be a situation where the provider sits down with that patient and goes over questions and answers relating to member needs and gets a good assessment of member functionality as well as medical problems.

Something that really needs to be addressed, probably even farther in the future, is dealing with the issue of the living wills and chronic illnesses. That is something that will come into play as well, as health plans get more involved with this demand side of things. They will help individuals develop their living wills to see if they are able and willing to put something like that into place. I've had a personal experience with my own mother who went through a transplant, and if it wasn't for the living will that she had, those doctors would have kept her alive for another two months in a very vegetative state. That was very troubling from the standpoint that the family had already made the decision, but the doctor still said if it wasn't for the living will, the care providers couldn't comply with the family's wishes. So I think this is another thing that has to come into the demand management component.

But in order for all of this to work on the demand side, you definitely need the buy-in by the providers because the providers really must encourage the patient decision-making process as well as acceptance of responsibility for self-care. That's going to be a big step, but it is a step that health systems and medical groups are starting to transition to.

Under capitation, as we go to these programs, you do need the help of that member. You can't do it by yourself. If you have the member coming in for every little thing that they need treatment on, that's going to be suicidal for many of the providers. They do need the assistance of the member and to have the member take some responsibility.

The second box of Chart 2 deals with those patients who are in an acute care crisis. This pertains more to episodic care. Usually the utilization management is hospital-based, even though we're moving to ambulatory care, targeting the admissions, and then getting into care pathways. This is very similar to the things that were talked about earlier by Zoe and Bob. The objectives of these are to direct the care to the most appropriate setting that we can. I think the managed care organizations and these merged health systems really have a better opportunity to do that than your more fee-for-service type environments or even your larger individual practice association (IPA) type networks that are contracting with multiple providers out in the community. It also helps manage the medical appropriateness. Is the treatment appropriate? Is the technology you're using appropriate? What about the place of service? What we're trying to do is return that patient to his or her optimal functional status, get him or her back into that healthy patient box, so you can again be working with him or her on those preventive type services.

We've reviewed some of the programs already. The preadmission review, concurrent inpatient review, discharge planning, and medical necessity review are all somewhat traditional types of utilization management programs. Things that you'll

be seeing coming into practice even more are the clinical care pathways that get into practice guidelines and protocols. The thing that was somewhat amazing when I was researching some of this was that in 1989 there were 700 formal guidelines, I guess you'd say, that were printed. Now, there are about 1,800 protocols/ guidelines established that are recognized by national firms or developed by national firms. There are thousands of others that have been homegrown by individual health systems or specialties because they didn't like the more formal guidelines. Right now there's really no uniform way of using guidelines. The health systems are picking and choosing those that best suit their needs.

Technology assessment is another thing that really will be important as we go forward as far as the cost/benefit relationship of how technology is used and when it's used. What hopefully is developing from going through all of this is that the medical policies and procedures of many health plans and organizations are evolving as we go forward to be more clinically based.

The last box in Chart 2 deals with the chronically ill patient, and here the question is how can we get these individuals into a management program that will really be optimal for the disease or the potential high risk that they're running as they go forward? What we're trying to do is develop a disease management program that goes across the whole care continuum. We want to identify those people through a health assessment who are the high-risk individuals for certain chronic illnesses. If we can identify them upfront, then we can make sure that they will be receiving the necessary treatment as they go forward and the education that they'll need in order to really manage that disease as it evolves through their lifetime. We're going to target those high-risk individuals, and then if we do get those individuals later on in the process, it's still a better way of managing those high-cost cases rather than just a traditional negotiation of fees. We will have a more structured disease management with protocols and guidelines on how to treat those individuals.

One of the objectives that we will need to identify for the chronic disease management programs is to target those high-risk individuals upfront through the health assessment process. Right now, in California, for example, there are many clinics inviting those individuals who have come to their program on a capitated basis to come in for a free health assessment. They will go through and identify who those high-risk individuals are, to make sure that they're going to get the most appropriate and effective care going into the future.

We also need to ensure access to the most appropriate provider. I'm not always convinced that the gatekeeper is the best entry into the system. Once that person is identified as having a high-risk potential for a disease or perhaps they have a chronic illness disease, a primary care physician may not be the best person for

them to see on a regular basis to treat that disease. They might need a specialist, so we really want to ensure access to the most appropriate provider in light of what treatment is needed.

Being more focused on disease management is going to be a challenge because you're going to need to collect information differently than you have done before, based on specific information, treatment, resources being used, the utilization and cost dealing with those specific diseases. It becomes complicated because now you're collecting information when the person is actually healthy, and you're looking at what the signs are going forward to when he or she actually contracts an illness. As indicated before, we have to manage the health care across the whole continuum of care—when insureds are healthy, in their acute stages, and also when they become chronically ill.

Here is a list of disease management programs currently out there:

- Diabetes
- Chronic Lung
- Chronic Congestive Heart Failure
- Cardiac Rehab
- Chronic Hypertension
- Chronic Physical Therapy/Rehab
- Renal Disease
- Asthma
- AIDS

I don't think we need to go over them, but as you can tell, they have been specific for certain diseases. There can be quite a bit of savings from some of these as a plan goes forward.

I'd like to go over what I feel are some of the keys to a successful program as we try to pull this whole thing together. First, you need the commitment from both your providers and managers to develop such a program. If you don't have the buy-in from the providers, it won't work, and that's the feedback that we've gotten from all of those who have been looking at the demand management idea. If they don't have that buy-in, it will be impossible to make it work, and that's why you find that many of the staff model plans and the medical group type programs are the ones that are getting into this more than the IPAs. It's very difficult for the IPA, which contracts independently, to really get the buy-in for most of these programs. You also need the buy-in from the managers because, as you can imagine, it becomes very labor intensive to measure the results and maintain positive provider relations.

This is a different way for the provider to relate to the patient. There is a lot of education that will be needed on the provider side. The physicians will need to encourage the patients to do some self-care. Educating patients to look at the different alternatives that are available to them to help decide which course of action they want to take is also important. As members feel more in control, they usually feel more empowered and more satisfied. We've heard that mentioned in focus group sessions. As these individuals understand more of what's happening to them and understand their bodies, they will become more comfortable with self-care. You folks know your body. You understand when you ache and where you ache, so on and so forth, but if you understand more of what's happening to you and what your options are, you feel more empowered, more under control, and you're likely to be more satisfied with the treatment that you're receiving rather than if you just leave it up entirely to the doctor.

A key to it once again will be the timely information going to both the patient and the provider. I think it'll be very important for these programs to be clearly defined and to know who's going to be responsible for what. What are the provider's responsibilities going to be in relation to the manager's and the consumer's responsibilities?

We're trying to get early identification of high-risk individuals, especially those with high risk for preventable illnesses. You can then get them into preventive programs in order to prevent a potential illness going forward. Or you might find out that person does have a current illness for which they're underserved. If that's the case, many times people have been encouraged to go to the physician right away rather than let that condition go for a long period of time. I think one of the most important things from a managerial standpoint, is coming up with a communication strategy that will offset the likely critics that will come up as this program evolves. Your critics will view this as restricting access. You're substituting care, letting the enrolled have more input, and this will be considered poor quality. So I think it'll be critical to put together a communication strategy. If you do not, you might be on the 11 o'clock news every other week, as we find most HMOs are.

One of the anticipated results is that we expect a reduction in unnecessary acute care. There'll be more efficient use of resources because health systems and managed care organizations will guide individuals to appropriate resources based on the continuum of care. By giving the members the power and also the knowledge, they'll probably have more member satisfaction. You'll really create a stronger relationship between the patient and the doctor because they will have open discussions, and they will be discussing the care that's being provided, rather than the patient just receiving it as is, and much rammed down his or her throat. Hopefully what we will accomplish is improved functional status of the patient by

first identifying early potential illnesses and early high-risk individuals, and then by being more disease focused rather than just utilization focused.

There are limited results data on all three of these different components. Again they are individual programs, and no one has really pulled them together. If I had to identify who are trying to pull these together, I would say Kaiser because it has provided results in all three different areas. Your other staff models dealing with group health—Puget Sound, Harvard, Pilgrim, and U.S. Health Care—are the plans that I know of to date. Some medical groups within California are starting to pull these type of programs together and are treating utilization management as a comprehensive care type program rather than just concentrating on the utilization side. We're just giving you some examples of where there has been some savings based on studies. One study observed a 17% drop in total commercial visits. In a Medicare risk contract, there was a 15% drop, and for another plan there was a 6% drop, just in the first year of implementing different demand management programs. Impacts of immunizations and preventive care for the elderly have also been documented.

This is most effective in Medicare risk and managed Medicaid product areas. Because they have the greatest number of people with chronic diseases and really the greatest opportunity to deal with those populations, these products will benefit most from a comprehensive management program like this. Capitated health systems will also benefit because they can allocate the different resources as well as influence provider behavior much more than perhaps IPAs. They're trying to look at the population or trying to look at their membership as a population and treating it as such rather than looking at it on a patient basis.

It has been my observation, as I've gone through several health reform proposals and projects with the federal government, state, and so forth, that everybody is dealing more with the supply side. That is the wrong message that the politicians are giving right now, but that's because they're politicians. You can get more for less price. I think until we accept the responsibility and really acknowledge that we have to hit the demand side at some point, I don't really feel any health reform package is going to be successful. That's where I think this type of program can succeed. The providers themselves understand the demand management component and are concerned with it, and they're the ones that will likely start structuring this type of comprehensive care management to incorporate not only utilization management but the demand management upfront, as well as the disease management.

Mr. Dobson: I agree with the last point you made about the government programs needing to recognize the demand side. You won't get any controversy from me on that one.

Mr. Samuel B. Venable: Many of your slides had to do with questionnaires to identify the at-risk or less-healthy individuals. It seems to me that there's a perception among the potential patients here that this sort of questionnaire could be used to carve them out of a plan. We already see, say, stop-loss vendors wanting to segregate individuals out of stop-loss arrangements. How will this perceived risk be addressed? Is it something that could be handled internally within our own plans or is there some external influence that has come into play?

Mr. Greenwood: The key to the programs that we've seen dealing with the health assessments is how you communicate them. We don't see the situation where in order to sign up for our program, you have to fill out a health assessment. It has to do with being upfront. The providers have bought into the idea that they need to understand what the health risk of a population is. For example, some of the medical groups actually invite individuals in to take a look at the facilities to see how things are going, to see where care is received, and then they sit down and talk about health needs and health assessment.

They've also done it in Medicare where they've given them a nice, little prescription drug bag, but in order to get it you have to come in and bring all of your drugs so that they can lay them out. That's when they tally out what drugs the patients are actually taking. Then the doctor makes an assessment of the patient's drug compliance. Then they give them a bag, which is a nice little present. So I think it depends on how you actually go about communicating it. You're not going to get 100% compliance. I don't think there's any question on that, but what you're trying to do is at least get as many individuals in to see your physician as you can; the physicians can get a good health history right off the bat. Perhaps you can get them into a disease management program or identify where their most appropriate care is going to be.

Mr. Alan N. Ferguson: I'd like to follow up on that. You described voluntary ways in which people come in to look at the facilities. How about completion of forms? How about annual check-ups or an initial check-up? If you had an initial check-up, a completion of the form at the beginning, you're going to have some expense. Is the employer paying upfront some of the additional cost that might be involved with that?

Mr. Greenwood: The additional expense that is identified by the health assessment or the periodic exam is the cost of the providers knowing the health status of these

individuals upfront. Under a capitated arrangement, they're actually going to save money in the long term. So what they're doing is using their money upfront as an investment to identify what the health status is so that they feel, in the long run, it's going to help them operate under their capitation arrangement. It's usually not the health plans that are promoting the demand side of it. It's the providers themselves and the provider groups that are more into the demand component and getting them into the right resources, rather than health plan.

From the Floor: What are the roles of annual check-ups or completion of a form?

Mr. Greenwood: It has been a combination of both. They try to get at least a form, but again what they're trying to do is to get that person in for an actual health exam. It's not a real comprehensive one. They just want to see someone sitting down with the physician, starting to establish that relationship so both of them have a better understanding of what their health needs are.

From the Floor: Both you and Bob talked about the importance of getting the provider agreement, understanding, and participation in these programs. Would you comment on the role or roles of capitation, of the resource-based relative value schedule, or per diems, in order to encourage the provider's participation in the programs? In fact, how effective are they?

Mr. Greenwood: Many times a person may ask me how big does a physicians' panel have to be in order to accept capitation in order to make them change patterns? Well, I guess my general view is there's no magical number. A physician can lose money at a hundred members or even at 500 or can lose much more at 10,000 members. My view on life is that you need to have a significant amount of that physician's practice under a capitated arrangement before the physician actually starts paying attention and changes his or her treatment patterns. I believe that you'll find a physician that is 50% capitated, 50% fee-for-service will not succeed because the physician has pattern, he or she will get hurt under capitation. If the physician concentrates on the fee-for-services treatment pattern, he or she will get hurt under capitation. If the physician tries to change treatment patterns so that he or she can live under capitation, the physician will hurt the fee-for-service side. I think at some point that physician has to commit to either really getting into capitation, like 80% of his or her practice, or staying at 10–15% which doesn't really influence his or her whole financial situation. I think the idea is to get an assessment of the provider as to what his or her attitude is towards capitation, and then to try to influence him or her from that point. I don't think there's any in between. You're either into it very little or a lot. At 50/50 there's just too much conflict, and you won't succeed.

Mr. Dobson: I would basically agree with that. I've heard home care providers, for example, say you have to have different nurses delivering home care for Medicare patients where you're not capitated than those that are doing the capitated group. You can't expect one human being to be able to operate under both systems. I think physicians face the same kind of things.