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Session 85PD Medical Cost Offset and Behavioral Health Care

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Summary: The medical and behavioral health care provider communities have long debated whether high-quality behavioral health care reduces medical costs. This session reviews past studies relating to medical cost offsets and explores the potential magnitude of such design and delivery of medical and behavioral health care programs to encourage potential health care cost savings and to increase wellness.

Mr. Stephen P. Melek: I'm with Milliman & Robertson (M&R) in Denver. And I'm going to talk about measuring and demonstrating medical cost offset effects from the behavioral health care perspective. Some of these concepts can certainly apply in other areas within medical/surgical delivery, but my presentation is primarily going to be from a behavioral health care perspective. My definition of behavioral health care encompasses mental health and substance abuse type diagnoses and conditions. I've been an actuary for 20 years. I say that because I've been speaking a fair amount to nonactuarial groups on some of these subjects.

I've worked with M&R the last six years, much of my work has been in health care consulting, with a fair amount of emphasis in behavioral health care. I specialized in behavioral health care even before the federal health care reform activity and the push towards parity in benefits. Recently, there has been a push again towards parity in benefits. Every time there's federal reform activity, that seems to happen. I've worked with the American Psychiatric Association and the American Managed Behavioral Healthcare Association (AMBHA), which is made up of a number of managed behavioral health care organizations, some of which, I'm sure, are represented in the room. I've also worked with a lot of other behavioral health care

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groups, hospitals, physicians, and other new risk-takers in the health care delivery system.

Before I go on, I'd like to get a feel for the audience's level of understanding of today's concepts, such as risk-sharing arrangements among providers. How many of you would say you have a moderate or a high level of understanding in that area? More than half. What about application of those kinds of concepts in behavioral health care? I see fewer hands but still some.

First of all, I'll summarize issues related to the "recycling" of medical cost offset savings back into the behavioral health care community. There are certainly arguments to be made both for and against that type of activity. I'll briefly talk about, because many of you have familiarity with it already, some of the risk-sharing arrangements among the medical providers in integrated delivery systems. I'll review several medical cost offset studies to give you a feel for some of the things that have been done and studied, some of the cost savings that have been quantified. We'll look at some opportunities after a review of the cost offset studies. First, within behavioral health care organizations, there are these types of risk-sharing arrangements that are already in place on the medical/surgical side. Then I'll talk about some opportunities in integrated delivery systems between the medical/ surgical and behavioral sides. I'll also briefly discuss some management information systems (MIS) implications.

Why should we or shouldn't we, as I say, recycle? What are some of the arguments against taking behavioral health care medical cost offset savings, which may be manifest on the medical surgical side, and somehow recycle them back into behavioral health care organizations or providers? From an employer's perspective, history tells us that many employers in the past have had very large behavioral health care benefit cost increases, certainly through the 1980s and continuing on into the 1990s. So, from an employer perspective or from a purchaser's perspective, there was a desire to fix those behavioral health care costs—to control them or to put a lid on them somehow. Because of those large cost increases, there also was a desire to try to isolate them. Behavioral health care providers are specialists. They're certainly different from medical/surgical providers. They even have their own internal specialists. But as far as isolating the delivery of behavioral health care, oftentimes they're considered the experts. They are good at reducing those kinds of costs and they understand behavioral health care delivery. The argument is to isolate them—to put them on their own to give them their own little pot of money, and to let them go away and do their thing.

There's another argument against recycling. There's difficulty in identifying and measuring some of these medical cost offsets, although we'll look at some studies

that have tried to reduce the difficulty in certain areas. Some of the questions relate to what specific aspects in medical cost savings would be attributable to behavioral health care delivery. Once you presume that you can attribute, for example, certain types of liver disease cost reductions to alcoholism treatment, how do you identify the savings? How do you quantify it? How do you share it? How would the MIS need to be designed in order to be able to identify and measure some of those things?

Another argument against the recycling of these types of savings would be that there's a natural cost savings in the behavioral health care organization already. Assume you carve out behavioral health care delivery from the HMO and give it an appropriate rate for the benefits it's providing—let's say it is \$5 per month per member (PMPM). If it can bring it in at \$4, it already gets the \$1 savings. Why does it really want to look elsewhere for more money? If it can do a good job and bring costs in under the cap rate, then it's benefiting from those savings already. The argument is that there's no need to participate in savings on the medical side or the surgical side. Another argument against recycling medical cost offsets to behavioral health care providers is the subjective nature of behavioral health care—it's very driven by user demand.

But there are arguments in favor of the recycling of medical cost savings into behavioral health care. As we'll see, quantitative cost offset savings studies have emerged and are continuing to emerge in that direction. There's more and more of a cause-and-effect identification. It's an extension of existing risk-sharing concepts already. It's not like it's new rocket science. If the medical side already has risk-sharing arrangements in place, this is just another extension of that. It's integration of total wellness for the covered membership population, and a risk-sharing concept integrated with behavioral health care would encourage the medical community and the behavioral community to work together to integrate their delivery and to work interactively. Another reason for the recycling is an increasing public belief that there is an interaction and a total wellness concept between medical treatments and behavioral treatments.

Let's quickly review some of the medical risk-sharing arrangements. Often, within an HMO or some sort of a managed delivery system, risk-sharing is used for many of the benefit dollars available, once it has set aside administrative fees and any sort of reinsurance premium for stop-loss. There may be a primary care physician cap, sometimes there'll be a couple different risk pools set up. The risk pool concept is simple. You're putting a budgeted amount of money into a pool on a PMPM basis out of the revenues. Out of that pool, you're paying health care providers on some basis. There may be a facility risk pool where the facilities are paid on a per diem basis. There could be a global per diem in some sort of a stratified structure. There

could be case rates paid out of that facility risk pool, some sort of a standard case rate with complicated cases getting a per diem for outlier days. What's left over at the end of a calendar period can be shared in some sort of a bonus or risk-sharing arrangement with the providers to encourage health care efficiencies and well-managed delivery. Often, the risk pool balance is to be shared three ways. As an example, the risk pool surpluses and shortages could be shared 50% to the facilities, 25% to primary care physicians (PCPs), and 25% to specialists.

The same sort of a concept could apply to a specialty risk pool, where the revenues budgeted for specialists are set up in a risk pool and some sort of a fee-for-service-based payment schedule (McGraw-Hill, resource based relative value schedule, or whatever it happens to be) is used for all these specialists. At the end of the period, the risk pool is shared 50/50 between the primary care doctors and the specialists. Sometimes these facility and specialty risk pools are even combined.

So in a nationwide managed care example within the medical/surgical community, let's assume we have a health care budget of about \$122. It can go lower than that. Table 1 is a summary of how this would work on the medical/surgical side, where you have the facility cost budgets, the physicians' split between the primary care and specialty doctors, and a behavioral health care carve-out.

TABLE 1
CURRENT FINANCIAL ARRANGEMENTS—PMPM COST ESTIMATES

Service Category	Moderately Managed	Aggressively Managed		
Facility Physician—PCP Physician—Specs Behavioral Care All Other	\$48.11 17.19 39.70 4.84 11.78	\$37.49 17.17 34.00 3.21 10.13		
Total	\$121.62	\$102.00		

In this example, you have got the facility costs budgeted at about \$48, primary care doctors are at \$17, and specialists are at about \$40. The behavioral carve-out is almost at \$5. The other costs would include drugs, home health care, ambulance, etc. If you can assume that, within a moderately managed care scenario, the delivery system does a good job and saves money, an achieved savings of 10% for the facility risk pool would result in the facility getting a 5.6% increase over their revenues. It was paid on a per diem or case-rate basis, and this savings in the risk pool increases its revenues by 5.6%. The sharing of the facility risk pool increases the revenues for primary care doctors by 7%, and the specialists receive a 3% increase. If you also had a 10% specialty risk pool savings, you'd see the specialists

getting a 5.6% additional increase in their revenues. The primary care doctors have an additional increase of 11.5%.

So you can see, a combined savings of just 10% in all the facility costs and the specialty physician costs from the revenue levels results in some nice increases to all the different participants; the facility gets a net 5.6% increase, specialists obtain almost a 9% increase, and PCPs obtain almost a full 20% increase. Assuming that they're delivering health care in a well-managed environment, doing a good job of getting under budget, cutting down their specialty referrals, cutting down their unnecessary admits, getting people out of the hospital in a reasonable period of time, there can be a nice opportunity there. So this is the risk-sharing opportunity that the behavioral community looks at, but they don't really do much of this sort of thing.

What structures do the behavioral health care providers use frequently? In a behavioral health care carve-out scenario, they're going to get a certain revenue amount PMPM, payable to the behavioral health care organization. This carve-out might come straight from the employer. It could come from the government if they're taking a Medicaid population, but it's often a single payment without separate rates for different age/sex groupings. A single PMPM rate is used, and that's it. The behavioral health care organization will turn around and manage that revenue. It will have administrative costs. Within all the facilities that are part of its organization, it'll have a per diem schedule just like the HMOs might have for the medical/surgical side. Perhaps case rates will be used, especially with some of the treatment programs that are out there, like those for eating disorders. If you needed to get a specialty provider for bulimia or anorexia, often they will use a case rate for specialty behavioral services.

There are fee-for-service payments to psychiatrists and psychologists for all their diagnoses, medication management, psychotherapy, and all that sort of thing, but there is rarely risk sharing within this arrangement. The behavioral health care organizations receive capitated revenues, but the providers within their organization often don't participate in the same kind of risk-sharing that we just talked about with the primary care medical doctors and all the specialists.

We described a straight carve-out. What happens within an integrated delivery system, where the medical and behavioral providers all serve the same family? This structure doesn't look much different. Again, there's not much risk-sharing going on in many of these types of delivery systems. Single PMPM payments are received, and the providers are paid on a fee-for-service basis. If they make money at the end, the organization retains the extra profits or loss, with no sharing to the

behavioral provider groups. So that's a quick summary of risk-sharing arrangements used commonly today.

Now, let's review some medical cost offset studies. These are just a few samples of what has been done. The first study I want to talk about is one that M&R was involved with in 1995. This was a combined effort with Staywell Health Management Systems, which provided the health risk data involved with the study, the Chrysler Corporation, and the United Auto Workers. Blue Cross/Blue Shield of Michigan was the organization that provided the claims data for Chrysler. We were trying to study how individual health habits affect medical claims over a four-year period, from 1988 to 1991. Over 6,000 life-years contributed to this study. These were employees who voluntarily participated in this health path risk assessment component of the Staywell program. Ten different health behaviors were studied. There were behaviors like smoking and wearing seat belts, but I'm going to focus on two of the behavioral elements that relate to what I'm here to talk about—mental health and stress.

In the mental health risk level, there were two risk categories defined—either an elevated risk or a low risk. An elevated risk was defined as someone who feels depressed some or most of the time. A low risk was one who feels depressed only part of the time or rarely. The stress risk level identification was also defined as elevated versus low. An elevated risk was defined in one of two different ways—first is if one has a high life stress. This was determined from many questions. Lives were evaluated to determine the stress level. We know through some of these job studies that have been done that all actuaries have low stress and would all fall in the low-risk level. Second, if you didn't have high life stress, you were still classified as an elevated risk if you had low-to-moderate life stress, and also had low-to-moderate coping abilities based on the health risk assessment. The low-risk classification was for low-to-moderate life stress and high coping ability. The rest of the group comprised those with the nonelevated stress.

So once everybody was categorized, we did an analysis of their medical costs. Tables 2 and 3 show the PMPM costs by type of service. We've lumped them into five categories here.

Table 2 is based on the mental health risk level. Note that within these service costs certain costs were excluded. Of primary importance, the mental health and substance abuse costs were excluded from these numbers. Some outpatient pathology and prescription drug claims were excluded. That was because Chrysler had alternative payment arrangements for these services that were not a part of the Blue Cross/Blue Shield database. These PMPM costs vary by risk level because of the medical/surgical cost aspects, not because of the behavioral costs. You can see

the elevated risk for mental health versus a low risk for mental health. In all of these service categories there's a fair variation. On the hospital inpatient side, there's a 13% higher cost for elevated risks; for hospital outpatient costs, there's a 15% difference; for physician costs, in total, there's a 9% difference. Radiology/ pathology had only a 2% difference, and the other category, a very small component, had a 23% variation. The composite difference was 12%.

TABLE 2
PMPM COSTS BY TYPE OF SERVICE & RISK LEVEL—MENTAL HEALTH

Type of Service	Elevated Risk	Low Risk
Hospital Inpatient Hospital Outpatient Physician Radiology/Pathology Other	\$31.85 31.49 32.24 5.18 0.26	\$27.71 26.88 29.32 5.08 0.20
Total	\$101.02	\$89.19

Table 3 shows that the stress characteristic was even more dramatic—there's an 11% difference in inpatient costs, a 29% difference in outpatient costs, a 19% difference in physician costs, a 23% difference in radiology/pathology, and a 70% difference in the other category, for a 20% composite difference between those that were evaluated to be at high or elevated stress levels versus those at low stress risk levels.

What does this say? This is not a cause and effect study, so I don't want you to get the wrong impression; however, it does suggest that certain care or behavioral programs can be set up to move people from elevated stress levels to low stress levels. Certainly one could save a potential, based on these results, 10–20% in medical/surgical costs. Again, these are nonbehavioral costs.

TABLE 3
PMPM COSTS BY TYPE OF SERVICE & RISK LEVEL—STRESS

Type of Service	Elevated Risk	Low Risk
Hospital Inpatient Hospital Outpatient Physician Radiology/Pathology Other	\$32.73 37.23 35.79 6.23 0.46	\$29.13 26.41 29.02 4.82 0.14
Total	\$112.44	\$89.52

Let's look at another study. This was a structured study based on malignant melanomas. The concept was, does a structured psychiatric group intervention with

patients who were newly diagnosed with cancer (malignant melanomas) have an effect when it's combined with surgical interventions compared to just the surgical interventions alone? Does it really play a role in improving physical and medical health outcomes? This was a six-week structured group intervention for patients who were newly diagnosed with postsurgical malignant melanomas. It's a form of skin cancer that is highly curable with surgery alone if removed when it's small and if it hasn't spread to lymph nodes, organs, or both.

This study was designed to evaluate the potential difference in reoccurrence rates of the melanomas and in survival rates. The control group had no psychiatric intervention. The experimental group participated in the psychiatric group intervention.

Actual medical costs were not studied, but reoccurrence rates and survival rates were studied. There were a couple of follow-ups used in this study, once all of the surgical interventions and the psychiatric group interventions took place. The sixmonth follow-up study results had general sorts of findings. As you might expect, the intervention enhanced patient coping abilities and reduced their psychological stress levels. However, psychiatric intervention affected the patient's immune systems. Actually, the natural killer cell subsystem was determined to be affected, based on some medical studies, versus only the standard surgical treatment. This happened six months down the line.

In the six-year follow-up study done in 1993, the mortality level of the experimental group was only 30% of that of the control group. The reoccurrence level of malignant melanomas was only 54% of the control group. One of the possible explanations that were put forth was that the psychiatric intervention improved health habits. That could include sun protection, better nutrition, or exercise. It could enhance some coping abilities, improve patient/physician partnerships, and lead to greater compliance with treatment programs and follow-up regimes. The intervention could also provide for better stress management. There's a great deal of social support in some of these activities, such as that received in group participation. It certainly can't be ignored that the experimental group's mortality rate six years later was only 30% of the control group, and their reoccurrence rate was about half of the control group.

Let me present a third study. As you might expect, there have been studies on alcoholism treatment. The trouble with some of these alcohol treatment studies is that it's tough to get a random assignment of people in treatment programs and those not going through treatment programs—those just getting medical care—those with problems with their physical body who just want the medical treatment, but not rehabilitation, detoxification, that sort of a program. People who participate in

this type of program have a tendency to self-select, and it's difficult to remove the bias from the study.

This study attempted to create less of this bias. I was not involved in this study, but my understanding is that it included more normalization. This was a study done in 1992. It involved a large midwestern manufacturing company covering a long period of health insurance claims from 1974 to 1987. There were more than 3,700 identified alcoholics over this period, and 82% of them received treatment, and 18% did not receive treatment for their alcoholism. That's not to say they didn't receive medical treatments, however.

In the 48 months prior to the treatment programs, there was a small difference in the PMPM cost pretreatment during the measurement period—for the treated alcoholics, the cost was \$159, and for the untreated individuals it was \$171. So there was about a 7% difference there. It's more dramatic to see what happens with treatment. For posttreatment costs, including the costs of the alcoholism treatment programs, the treated alcoholics were running about \$228 PMPM—certainly higher than their previous \$159, but you have the treatment costs in there. The medical costs for the untreated alcoholics, just with their medical costs, went up to \$346 PMPM.

So there is a 34% savings, even once you've added in the treatment costs for those who are going through the programs. In the first posttreatment year, these treated alcoholics' costs dropped, and they trended down to a level at or below their pretreatment cost levels. Whereas, the untreated individuals' costs remained quite elevated for some period of time.

After trying to adjust for pre-existing group differences, it was determined that the alcoholics who were untreated for their alcoholism had 24% higher average monthly costs during the four-year posttreatment period. The difference was about \$39 PMPM. For the treated population, the alcoholism treatment costs started at 68% of their total health care costs in the first three months. I guess you can expect a high level of treatment costs compared to the total delivery of health care. Then it dropped to 26% in months 6–12 and continued to drop gradually thereafter. Most stuck with the program and didn't have to re-enter the alcoholism treatment programs, so they were doing a good job there.

They also did a time-series analysis, the result of which showed that the total health care costs dropped 23–55% (based on the different type of analysis that was done) below pretreatment cost levels after the first six months posttreatment. So it was a very effective treatment program.

There's another study that goes towards proving the point about savings that can be achieved if you can get people into alcoholism treatment programs. We're talking about medical savings that go far beyond the treatment costs.

Here's another study regarding the psychological distress related to cardiac rehabilitation. This is a 1993 study done at the Mayo Clinic. In this study, the clinic examined the early identification and treatment of patients who were determined to be psychologically distressed in cardiac rehabilitation programs. Some previous studies had implicated that psychological factors were at play in the development of coronary artery disease, and that psychologically distressed individuals had decreased long-term survival rates, even after myocardial infarctions and some other disease manifestations.

In this study, there was a smaller group size. The 381 consecutive patients were given the symptom checklist 90-R questionnaire which was used to score their level of psychological distress. Out of these 381 patients, 41 scored above the 90th percentile and were judged to be psychologically distressed. The clinic determined, of these 41 individuals, that they were 2.44 times more likely to be hospitalized than those who were not distressed. The psychologically distressed were more likely to develop a myocardial infarction or sudden death, and more likely to undergo new angioplasties and bypass surgeries during the six-month follow-up period. They were also more prone to be readmitted for chest pain, which was later determined not to be infarction related and was not treated with angioplasty and bypass surgery.

When other identified risk factors were controlled for and the results were normalized, the presence of psychological distress increased the risk of early rehospitalization by a little over 20%. The total cost of rehospitalization averaged over \$8,500 for each of the 41 distressed patients, and only a little over \$2,000 for the nondistressed patients, a four-to-one ratio. Again, this study would tend to prove that if you can get people from a very distressed status to a much lower level of psychological distress, at least when cardiac rehabilitation-type environments are at play, you could save a lot on the medical and surgical side of health care costs.

I want to reference some other studies. The state of Hawaii and the Health Care Finance Administration were comparing a managed Medicaid population to a feefor-service population in a 1994 study. They showed that the overall managed mental health programs lowered medical service utilization costs by anywhere from 23% to 40%. This is ongoing work being done in Hawaii. Among the chronic medical diagnoses, the managed mental health groups were able to lower the medical costs and utilization by anywhere from 28% to 47% compared to the old fee-for-service style delivery within the Medicaid program. There are certainly

many reasons for this, but it's interesting to note the managed mental health care program's effect on the managed medical costs.

Other studies include an Oregon study sponsored by the Office of Alcoholism and Drug Abuse Programs, which showed a 51% reduction in the number of medical hospital claims after substance abuse treatment. This is somewhat similar to the other substance abuse study that we looked at. In Ohio, there was a study done by the New Standards group where 1,270 patients were surveyed before substance abuse treatment programs, and then at one-year follow-ups. As I understand, this is an ongoing study being done in Ohio. As of 1995, the treated patients had a 70% drop in their psychiatric emergency room visits, an 8% drop in hospital medical admissions, and a 6% drop in medical emergency room visits.

There are a fair number of different studies going on—commercial, Medicaid, whatever—in states and in different private endeavors, showing that there certainly is something to be said about the medical cost offset savings potential for different behavioral interventions.

There's one concept that's currently being studied which has to do with major heart surgery. Part of the difficulty on the medical cost side after major heart surgery is that patients have sleep disturbance, apnea, depression, fatigue, extra visits to primary care doctors and specialists, and extra procedures. Some of the concepts involved with this study may be a little bit different than some of the normal medical-surgical interventions that are being done. The study involves a presurgery relaxation program to try to reduce some of these postsurgery costs after major heart surgeries and other major surgeries. The concepts involved with the relaxation programs suggest that you can get a faster induction of anesthesia and less would be required to maintain the unconscious level during surgery. There would be a lower percentage of postoperative hypertension. There would be fewer postoperative complications, less pain and anxiety on the part of the patients, and a shorter postoperative length of stay. There is a study that's currently being done, and the early returns of the study show that with this pre-surgery relaxation program, which is a behavioral intervention, that there was a reduction of anywhere from 1.5 to 3.5 days in the length of stay as a result of their techniques. This turned out to be about anywhere from a \$1,200 to a \$3,000 savings per stay for the patients who were going through this program.

Another type of study that's being done has to do with patients with panic disorder and their use of emergency room services. It has been determined, in some areas, that panic disorder patients can visit an emergency room nine times before they receive a proper referral and appropriate treatment of their disorder. Medical professionals often do not know what's wrong with panic disorder patients, and

unless it's properly identified, that's how many unnecessary, unsuccessful visits and cost-related services can happen with these types of patients. There are emergency room case finding programs being studied now to try to identify some of these users of emergency room services. They are trying to treat them in a different way than just trying to find the medical/surgical problem and really spinning wheels and running up many unnecessary costs.

One example of this is an effort to identify multiple users of heart-related services in the emergency room within a calendar year. The provider group is examining the use of electrocardiograms, echos, observations, and so on for apparent heart conditions where patients don't subsequently get admitted. There are many tests. Patients go to the emergency room in their panic state, with a many complaints about certain conditions, but doctors are not finding anything medically wrong. The provider group is trying to identify these early on, so they can go after patients with these characteristics and use behavioral interventions. Maybe they can identify them after two or three emergency room visits instead of the nine or ten that it has been taking.

There are other kinds of case-finding programs, where providers are identifying certain types of overuses of medical services because of behavioral conditions, and are trying to intervene in an appropriate way to try to help them with their behavioral-related condition. One such study that is getting more and more publicity is called the Early Start Program. Kaiser has been doing this and it's starting to be installed in other places. The Early Start Program model is for early identification and management of substance-abusing pregnant women. It's used for the Medicaid population because that's where the problems are more prevalent. The goal is to reduce the neonatal abnormalities and the medical costs associated with the substance abuse.

Drug and alcohol use during pregnancy can lead to many complications: prematurity, low birth weight, microcephaly, intrauterine growth retardation, developmental delay, birth defects, and on and on. The goal and the premise of this program is, even if it's only temporarily, to get some of these mothers off of the substance, to reduce inpatient lengths of stay, complications, re-admits, total charges, and average charges per day, which results in a redistribution of some of the diagnostic related groups (DRGs) towards the normal sorts of deliveries and normal newborns and away from the complications, like the postpartum problems, prematurities, etc.

Kaiser, in its results to date, had identified within its Medicaid population, that 8.5% of these Medicaid moms were determined to be at risk for substance abuse. So far, in the program, it is reporting that it is experiencing an average hospital savings of over \$6,000 with its Early Start Program. When I asked Kaiser about how much it

was costing to fund its Early Start Program, it didn't have real numbers. It's really far below the savings that it had been able to achieve. Those are some of the different studies and programs that are being implemented now to try to affect some of these medical cost offset savings.

I've talked about the risk-sharing concepts and some medical cost offset savings studies. How would you design risk-sharing in the behavioral health care side if you were so inclined? There may be many in the room who are not so inclined. Maybe this will get you thinking about it. Assume I'm the chief financial officer of a health care organization, and I have a high level of medical costs. Generally speaking, if somebody in the delivery system can come to me with a program that can save us money, is it not a part of the concept of risk-sharing to say, "OK, if you can do it, and you can prove it, some of our risk savings will get channeled back into whatever you're doing?" I don't care if it's a cardiac program, an ortho program, primary care delivery, or behavioral health care delivery. If people can save the health care system money by using a new technique or a new program, and if they're sharing not only in the potential savings but also in losses if they don't save, doesn't't it makes sense to get them on-line with that risk, and to encourage them to design new ways to achieve total wellness, to work together within the total delivery system? This is just a subset of that whole concept.

Within a behavioral health care "carve-in" organization, if the parent health care organization is not willing to have an interactive sort of medical cost risk-sharing arrangement, if you wanted to install something within your own organization, how could you possibly design it? Well, you can make it look much like what the medical/surgical side is doing. You could have a primary behavioral care cap. Certainly you have to identify who's the primary behavioral physician within the practice, but you can assign one and capitate that physician for primary services. You'd have to identify what primary services are, but that's not any different than what happens on the primary medical side. You could also have the facility costs all paid out of a risk pool on a per diem basis. The behavioral specialists can be paid on a case-rate basis or using fee schedules. You can have a facility risk pool, sharing the surpluses and deficits with the facility, with the primary behavioral care provider, and with the specialty behavioral providers. You can set up a specialty risk pool, which is very similar to what's done on the medical side.

Financially, how would that work? To see how much is at stake here, let's say you had a \$4 PMPM cap rate for behavioral health care services that you had set up, which was net of administrative costs. You determine that \$2 PMPM of that's going to go into the facility risk pool, and you're going to split that 50/25/25 among the facility, primary care behavioral physicians, and specialty behavioral physicians.

You also have \$1 PMPM going into a specialty risk pool, and you capitate the primary care behavioral doctors at \$1 PMPM.

Let's say the results came in where the costs for the risk pool revenue PMPM were only \$1.60 instead of \$2, and the costs for specialists amounted to 80 cents PMPM instead of the \$1 risk pool contribution. The facilities would end up receiving, out of the risk pools, an extra 20 cents, which creates a 12.5% increase in revenues. That's no small revenue-sharing. The specialists would receive an additional 10 cents PMPM from the facility pool, and 10 cents PMPM from the specialty risk pool. That's a 25% increase in their revenues. The PCPs would end up with a 20% increase. The concept is to give back to the providers on the behavioral side some of the savings that are achieved. If they do a good job managing their delivery, and beyond that, managing wellness and getting all the depressed, schizophrenic, or whatever conditions improved, so that the total costs are reduced, then they share in the total behavioral cost savings.

What's another risk-sharing approach within a behavioral health care organization? You can use a risk-sharing approach with an integrated Employee Assistance Program (EAP) and behavioral benefits combination. Here is where the EAP program could participate. Often in today's environment, EAP programs receive a subcapitation or a subpayment to get in the employer workplace and provide certain services. Are they financially motivated to really do a good job or to save behavioral health care costs down the road? One way of motivating is a risk-sharing arrangement between the EAP and the full behavioral program.

Let's say you had an EAP where the EAP provides information and does assessments, counseling, and referral service for up to six sessions; after that, clients go to the behavioral organization for the additional services. Let's assume that the EAP is receiving \$2.25 PMPM on a capitated basis. Let's also assume there is a behavioral carve-out providing a structured benefit of 30 inpatient days and 30 outpatient visits, with acute inpatient substitution alternatives providing a full continuum of services. Assume the behavioral carve-out revenue was at \$5 PMPM and you have decided to share a behavioral risk pool with the EAP. Assume the behavioral pool is going to split the results 85% to the behavioral carve-out and 15% to the EAP as an incentive. The whole purpose, again, is to get the EAP to do a very good job in its early interventions and early counseling sessions, to save costs down the road for the behavioral health care organization.

This potential risk pool surplus sharing could mean a lot to the EAP. Even if it were to spend more than its capitated revenues, it would share in any behavioral savings achieved. Assume it was going to cost the EAP \$2.34 per employee per month (PEPM) compared to the \$2.25 it budgeted. They're over budget. But down the

road, if the behavioral carve-out organization, which received \$5 in revenue, only spent \$4.60, it can be presumed that some of it had to do with the EAP early intervention. The EAP cap revenue is equivalent to \$1 PMPM if you would assume that there were 2.25 members per employee. But it receives a risk pool surplus share of six cents. This is combined with its \$1.04 PMPM in expenses, because it went over budget. If it went over budget and did a great job saving money down the line, it ends up sharing in the savings and obtaining a net profit, if you will, beyond the \$2.25 PEPM cap rate because of this participation.

The whole concept is to provide the EAP with incentives to not be so cost-focused that it doesn't do a very good job. Instead it must realize its participation can save money down the line. It's just like any other risk-sharing arrangement.

Now let's discuss some potential integrated medical and behavioral risk-sharing arrangements. I'm terming two alternate approaches—an aggregate-type approach and a specific-type approach. And I'm coining a term "risk overlap" here. Look at particular services and the costs of providing those services. If it's services for a specific DRG or specific group of current procedural terminology (CPT) codes or some other bucket of services, there's some level of risk overlap rate that can be attributed to the behavioral health care contribution to that service cost. The health care providers and the actuaries can get together and determine that, for this bucket of services, there's a risk overlap, say, of 25%, or the behavioral "contribution" to those expenses was determined to be 25%, and the medical side will keep the other 75%. The risk overlap is the term I'm introducing here. Again, it's risk-sharing of excess funds, but it's also sharing of shortages. Much of the behavioral providers would like to participate in the fund surpluses and want to get into these risk-sharing programs, but they're going to share in the losses as well as the surpluses. This concept can be applied if you have a behavioral cap or even if you don't have a behavioral cap, although most of them nowadays have separately identified caps.

I will discuss both an aggregate approach and a specific approach to structuring behavioral/medical risk-sharing arrangements. The aggregate approach presumes that you take a portion of the total medical health care pie, and allocate it to the behavioral health care organization using these risk overlaps. You're not dealing with specific DRGs, or you're not dealing with specific services or CPTs; you're really looking at aggregate numbers. The medical groups have to agree, and the difficult part is sharing these financial results.

Getting the medical side to agree with the behavioral side to share aggregate results can be very difficult, but this aggregate approach has its advantages. It can work well when you have an established risk pool. If you have an established inpatient hospital risk pool set up, you don't have to do anything different. You can

introduce the behavioral side into a risk-sharing arrangement in that pool and give it a small piece. Instead of the 50%/25%/25% hospital/PCP/specialist risk-sharing we talked about, you introduce a fourth element which is the behavioral carve-out company that was previously set off to the side. Maybe you give it 5% as a risk-pool share and take 2% or 3% away from the hospital side and 1% or 2% away from the two physician groups. This would give the behavioral group a stake in the results in an effort to try to get it to do a better job of what it's doing, especially if it's going to save in the medical costs.

First, you have to identify the risk overlap rate. Then, identify the different categories of health care services that you're going to use in this kind of medical cost offset structure—is it inpatient facility, outpatient, specialty services, prescription drugs, or whatever? You identify the risk-sharing rates for each one of these categories, and then the rest of it is just math.

As an example, let's say that you have a medical facility risk pool with budgeted revenues of \$35 PMPM. Also assume you have a medical specialty physician risk pool with revenues of \$35 PMPM. Assume a prescription drug risk pool was receiving \$10 PMPM. The behavioral organization is assumed to be capped at \$5, though that might be high for some of the behavioral organizations out there. Let's say that you were able to set a risk overlap rate for behavioral health care contributions (to medical costs) of 10% from the facility pool. Also assume that the prescription drugs risk overlap rate was set at 15% and the specialty pool was also at 10%. Assume that the results are going to be split 50/50 between the medical and behavioral group after application of these risk overlap rates.

The illustration assumes that the \$35 PMPM medical facility risk pool actually incurred costs of only \$31. On the specialty side, because many more dollars were spent, costs are assumed at \$37, but prescription drugs costs were favorable at \$9.60. The behavioral community spent more money in an effort to try to reduce medical costs through different programs. It received only \$5 in capitated PMPM revenues, but they spent \$5.05. So without a risk-sharing concept, it's in the hole. But by the time you go through all the math, it's actually netted a 13-cent gain because of the savings from the different pools on the medical side which turned its five-cent loss into an eight-cent net gain.

The whole concept, again, is to try to motivate them to do more, to be better at what they're doing—that's assuming you agree with the concept that there are medical cost savings that can be achieved through some of the behavioral interventions. Now that's not to say that the medical group in this concept is giving the store away. It ended up giving away 13 cents out of a total \$2.40 in PMPM savings from all these risk pools. This shared savings can be very small, in the big picture,

for the medical side. It's receiving \$35 PMPM in its revenue pools. It's experiencing a total savings of \$2.40 while giving only 13 cents over to the behavioral side. But that could be a big deal to the behavioral community, and a big motivation to get it to further some of its programs. It turns a five-cent loss into an eight-cent gain, which can be a big difference to an organization like that.

That's the aggregate approach. As you can see, it's a simple approach. You're already using risk pools that you have established. The difficulty is determining the risk overlap rates. Getting everybody to agree on what the right percentage and what the right sharing arrangement would be on these different pools can be a very subjective thing to do. One approach is to start with small percentages and work your way up with the risk overlap rates once you get these kinds of programs in place.

Now here's a specific approach. Let's say the medical side doesn't buy the fact that it should share the results from the entire inpatient facility or specialist risk pool but it does buy the concept that you can identify specific services that are behavioral intervention related. Let's look at specific DRGs or CPTs or other services. The concepts are still the same. You identify some sort of a risk overlap, which is probably going to be much higher when you're zeroing in on specific CPTs, DRGs, or other specific services. You identify your risk-sharing rates. Once you have identified that a certain CPT is very heavily behavioral related, that doesn't mean you give 100% of the net results to it. You might still split it 50/50. You go through this process for each identified DRG or CPT or specific services. Here again, you might start with a very small group of services that could be related to, for example, malignant melanomas or different alcoholism-related treatments. You identify target utilization rates, target inpatient days per thousand, target physician services per thousand, by DRG, by CPT, or whatever it is. It's very detailed, but targets can then be established based on your own organization's results or based on theoretical results in a managed-care delivery system. You can set up specific standards or targets that you're measuring against.

You have to get agreement as to what that target would be, but if it's based on your own experience and you have tens or hundreds of thousands of covered lives involved with that past experience, and if you're looking at a cost improvement from that past experience, you can really zero in on specific CPTs, DRGs, or whatever, assuming that your management information systems can do that. Then you're just measuring your actual results against those targets for your selected DRGs, or CPTs, and comparing the actual results to the targets and going through the same sort of calculations we just went through. Of course, the behavioral health care organization has an additional complex issue. Let's say that it makes some money in this risk-sharing. How does it distribute all that money? How much goes

to the psychiatrist, or the psychologist? But those are the same problems that every provider organization has when you're sharing surplus results in a risk pool with specific individual providers within that organization.

Here are a couple of quick examples on how something like this would work. Let's say that you identify DRG 202, which is cirrhosis and alcoholic hepatitis. You assume a target number of inpatient days per thousand of 0.43, which is very small, but it's only a single DRG. You might have 100,000 covered lives, so the total target is certainly going to be much larger. Let's say that you have a risk overlap rate set at 80%; in other words, the medical community is agreeing that much of the specific cirrhosis and alcoholic hepatitis expenses can be directly behavioral related. It's going to give them a very high risk overlap 80%. It's going to share, from that 80% overlap, 50/50 with the behavioral organization. That leaves a net 40% of the result to the behavioral group. You also need an average charge target. I set it at \$1,800 per day, because we're on a per diem basis. Let's use DRG 140, which is angina pectora. The inpatient target rate being used is 1.13 days per thousand. The risk overlap is much smaller, because there are many different contributing factors. We'll set the risk overlap rate at 25%. Again, a 50/50 split is used, and the per diem is a little bit lower at \$1,650.

We also have an example of a CPT range. We're returning to malignant melanomas and using a CPT range of 17260–17286, which includes the destruction of these sorts of things. Within this whole range, we set a target utilization rate of 0.32 per thousand with a 50/50 risk overlap rate and a 50/50 sharing rate. We're using a fee schedule with an average service rate of \$145 that was set over all these CPTs.

I've grouped them together for the sake of illustration. In this case study, we had approximately 10,000 covered lives. For DRG 202, we had a target set for cirrhosis and alcoholic hepatitis of 0.43 days, but we actually experienced 0.29 days per thousand. For DRG 140, the target was 1.13 and the experience was 0.9 days. The CPT range target was 0.32 and we had an actual result of 0.16 days. Going through the math, you'll find that the total savings, over a small group of only 10,000 lives, was \$6,547. We went through the risk-sharing formulas with the risk overlap rates and the profit/loss sharing rate of 50/50. It was a total gain of \$1,540 out of that \$6,547 that went to the behavioral group through this specific application. We're talking about small numbers here, but it was a very small study. If you were to amplify this to apply to more DRGs, CPTs, and other services, you would see that this can become a real incentive for the behavioral organization. Again, the medical side is not giving away the whole shop. It is still keeping over \$5,000 out of the \$6,547 in savings, but it is passing a portion of that over to the behavioral health community.

You can never prove cause and effect here, but look at the risk-sharing arrangements today on the medical side. When you obtain a savings in your inpatient facilities utilization (say you set up a target of 180 days per thousand and they brought it in at 170), you share some of that with the specialists and primary care doctors. Can you prove that they did it—that it was their interventions that specifically produced the savings? Maybe not—but the structure is such that you're sharing it with them, based on the results. The same thing applies here. You can't always directly prove cause and effect, but the concept still applies that if you do get favorable financial results, and if it can be attributable or partially attributable to the behavioral interventions, what you're trying to do is motivate them and give them profit-sharing and loss-sharing incentives related to what's going on.

Let me give a quick summary. Both approaches attempt to share the actual financial results, compared to target values, between the medical and the behavioral side. The aggregate approach is simpler and it's easier to implement, given that you can get the agreement with its composite sort of approach, and that you can get agreement that the full gamut of costs within your risk pools are subject, in some degree, to a medical/behavioral risk overlap.

The specific approach is more targeted, but it's easier to obtain the medical side buy-in because of the specific components that you're setting up for the risk overlap. The specific approach could work better in a staged effort, assuming you have all the information systems set up to do this. You can start small and work your way up, and give the behavioral side a chance to prove that there really is medical cost offset savings that can be achieved, and you can work your way up. You can do that with the aggregate approach too and just start with very small risk overlap rates, and work that up as well. You must have the MIS to be able to routinely track utilization rates, cost by DRG and CPT, or whatever it is that you're measuring. You certainly need it for the appropriate membership group. You may not do these medical/behavioral arrangements for your entire covered population. You might start out with a particular employer who's really focused on this. The employer might even come to you and say, "Why aren't you doing something like this within my program?" You must be able to have the proper incurred claim reporting capabilities.

The last concept, again, as everybody knows, is that risk-sharing is not a one-way street; it's a two-edged sword. You have to share in the good news and in the bad news, regardless of how they came about. For example, the behavioral health care program can be all excited about getting into this risk-sharing arrangement, and then a loss will occur. They complain and say "It had nothing to do with them—it was those medical guys, those specialty guys. They really goofed everything up that we were trying to do." But, there's no argument really that can be made; it's just like

any other risk-sharing arrangement. It's a teamed approach. A teamed delivery concept and a teamed sharing of gains and losses is what it's all about. It's interactive delivery among the provider communities; you must get them to work together for the sake of saving the entire delivery system costs down the line.

Finally, these financial links are set up to encourage total wellness. Go beyond the numbers and the specifics in the design. Take a step back from an employer's perspective. The employers want employees that have good health care, which is delivered well. They want a good interactive delivery system where providers are not combative, and one that can get employees to work and to be productive. We haven't even addressed disability-related claims, social claims, criminal justice claims, or lost productivity days at work. We're just focusing here on the potential savings in medical costs. Other studies are trying to, and with good cause, champion some of the other results that can be made from good behavioral interventions into criminal justice costs, social costs, employer disability costs, and other related costs. We're just looking at the medical side. You could take this same sort of a concept into your disability claims, or into your life insurance claims, or whatever else it happens to be. An argument can be made, if you can get some of the appropriate sorts of cost offset studies, that you can go past just the HMOs sharing with the behavioral health care organization, that you can go and apply it to some of your other lines of business as well.

From the Floor: It's exciting to see real science being used, and to see concrete demonstrations replacing impressions. Furthermore, what seemed to be the best way to try to encourage these risk overlaps is by demonstrating that, in fact, there is a real effect there. Therefore, I think it's important to look critically at the studies, and to that end, I'd like to emphasize two points in particular.

The first point is that when you're working with a self-chosen population, a variety of extraneous effects can come into the results. In study one, for example, they were employees of Chrysler who volunteered; they chose to be in a study. So an alternative explanation would be that you gathered into your study many people—you overrepresented people who are particularly sensitive to their depression, their anxiety, or their low coping skills; therefore, we got the result that was obtained because many people were in the study of that nature, much more than are represented in the general population. And that could be true of most of the other results. There was some degree of self-choosing going on. The point I'm making is that if it was just bad science, then it's going to be hard to use that study to convince the medical staff that a risk overlap is, in fact, justified.

And the second point is demonstrated by study three. That was the alcohol treatment study. We had a treated group and an untreated group where treatment

meant treatment for alcoholism itself. The untreated group went from \$171 in costs to \$346 in the pretreatment to posttreatment stages. For the untreated group, pretreatment and posttreatment costs are very similar. It wasn't really any different. The only difference between pretreatment and posttreatment was that they were in a study. In fact, the other potential alternative explanation for so many of these results is that simply creating a study has an effect itself. The phenomenon that we're examining here is so quixotic that you don't even give to have any medical care. Just creating a behavioral study has the effect of helping people, or hurting people, or whatever it is that you're studying.

So we saw a very dramatic increase from \$171 to \$346. The only difference during that period of time was that the people participated in a study. They might not even have known they were in a study, but, nonetheless, the effects of creating the experimental situation has effects. Indeed, it might have had the very effect that we're looking at in study three, which is that the treatment for alcoholism reduced medical expenses from pretreatment to posttreatment. In other words, if we're doing bad science, it's very difficult to use these illustrations as justification for the kind of cost-sharing that you're talking about. It's better to take those into account before you try to use them to have the political effect that you're going to use them for.

Mr. Melek: Let me make a couple of quick comments. First of all, on the M&R study, and in any of these studies, you are always going to have the issue of self-selection concerns and biases. I think some of the scientific approaches are trying to risk-adjust or normalize the results between a control group and an experimental group. There's always that challenge. Of course, there's always going to be the problem that you might get out of the study what you're looking to get out of the study, and that could apply to both sides of the issue.

The M&R/Chrysler study was not set up to study mental health and stress. There were ten different categories studied. I showed you only two. I could have taken your time and showed you the effect of wearing seat belts, normal exercise or eating habits and other things. It was just a normal risk assessment. I don't think the participants in the study were rewarded. It was just something that was being done. They wanted to learn more about themselves. If everybody in the audience was offered a chance to learn more about their overall condition, you might say the study will be biased because the people who are volunteering are volunteering for a reason. That could happen. But there were many covered lives, and nothing was singled out. It was just an evaluation of high risk versus low risk. Agreed, it was not a cause-and-effect study. I would encourage more of these kinds of studies in areas other than behavioral health care; perhaps we need more studies of different

kinds of medical treatments, surgical treatments, behavioral interventions, or whatever.

Certainly there are some difficulties and challenges; however, I think some of the differences in the results are substantial enough that it's worth raising this as an issue. The medical side has been studying this risk-sharing concept for a long time now, and the behavioral side has really not been participating in that. This can be a very controversial subject, but if there is a belief that there is an effect or some sort of interaction between the behavioral provider community and the medical/surgical community, do these risk-sharing concepts make sense? One trend I think you're going to see much more of is the merging together of behavioral treatments within a primary care setting.

Mr. Stephen A. Meskin: I'd like to echo the previous comment about the studies. I wonder if you would be able to supply the references to the studies, if I gave you my business card.

It would be interesting to read the studies, or try to get some of them, and check out the signs. Is the M&R study published?

Mr. Melek: Yes, it is, and I can get you a copy of all of those, at least the information I have.

Mr. Meskin: On that study, what was the size of the two groups, and did you compute a confidence interval on the results?

Mr. Melek: We're talking about the M&R study again?

Mr. Meskin: Yes.

Mr. Melek: I wasn't involved specifically with the work. I am not aware of any computed confidence intervals from the study. I can try to investigate that for you. As far as the volume, I don't have that with me, but that's a good point, too. You're talking about how many people started and how many were classified into the two groups—high or elevated risk levels. I'll try to find that out and supply that to whomever requests that sort of information.

From the Floor: I do a great deal of employee benefits consulting. Many of my clients have obtained significant mental health experience. The one thing that they're finding also is, in many of the point-of-service plans, the PCP is prescribing Prozac or other antidepressants without a psychiatric referral. Is there anything in this whole structure that could help? I like this idea of total wellness, but there are

many PCPs trying to treat mental illness through drugs and medication, and they are not really treating the problem. Could you comment on that?

Mr. Melek: I would probably tend to agree. I don't know if everybody agrees with that concept. Let's assume I'm a primary care doctor and I'm getting paid on a capitated rate basis. I'm also participating in a specialty risk pool. Every time I send somebody to a psychiatrist or a psychologist, I don't know how much more he or she is going to do. That's just going to drain that pool down. Maybe some of my patients come in with a backache and they're also complaining about stress. Should I give them a prescription for Prozac and send them off? It's quick and it's easy. I don't have to worry about referrals, or worse yet, physician profiling or whether someone is going to crack down on me for my overreferring and maybe kick me out of the panel.

It's a real easy thing to want to do, but is it the right thing to do? Well, that can be answered depending on what's right for you. I guess I would say that a way you can incorporate what I've been talking about is set up a target PCP prescribed drug utilization rate for the membership. Then have a risk pool or some sort of a incentive to hit. It's sort of a target within a target. If they have a utilization rate that is "acceptable" within the delivery system, and they start overutilizing, it'll motivate them to perhaps use a more appropriate behavioral intervention, if it is necessary. Because many times—and I don't want to really get into this because I'm not the clinical expert—but how much additional down-the-line medical costs do you get when you have a PCP prescribing Prozac or other anti-depressants? The patient really doesn't get his or her problem solved. It's a patch, perhaps, but if that's not a good long-term solution, that person's going to be back in that door, maybe several times, and then get referred out. So, what was better? Isn't it better to get to the cause and get the solution right away? There's a long-term focus versus a short-term focus, and there are many issues. That's just one way that you could potentially try to use this in that environment. That's a good question.

Mr. Harry L. Sutton, Jr.: I'm curious about the role of the behavioral specialist, whether it's a psychiatrist, a psychologist, or other professional. When you talk about cardiac rehabilitation and providing counseling to people who are at high risk, how many of the counselors that are out there would know how to do that? How many of them are trained to know about the symptoms and the problems in dealing with a cardiac rehabilitation patient? And why wouldn't the hospital, which is getting most of the bills, and the cardiac surgeons hire somebody who knows something about cardiac treatment to do that in the hospital setting and remain outside the behavioral health part of the organization?

Mr. Melek: I really don't have direct answers to that. Are there any behavioral health care actuaries in attendance who have worked with their own organizations who might know how many of your providers can do some of these sorts of things? Some of these programs are a bit new. The Early Start Program and some of these others are started up with an idea from one organization, and then they start spreading it and it starts getting picked up.

Mr. Robert H. Plumb: I'm a health actuary, and I've become involved in behavioral health care. We have found that it is very underdeveloped in the U.K. Initial studies by some colleagues of mine in the medical area have shown that we are a long way behind you in having effective organizations in this area. We have a patchwork quilt of services, and we suffer many more of the problems like you've described. My psychologist and psychiatrist friends and colleagues are telling me that there is a use for psychotropic drugs. But, so often, it is used as a panacea by the practitioner. They experience repeated visits by the people concerned. We also are seeing a great many problems in actually training people overall. How do these people identify these things? We haven't even got off first base. This is an overall problem, and training is very necessary. You have to start somewhere, and go on from there.

Mr. Melek: Regarding the cardiac question, I am seeing a very elevated level of interest in this whole subject matter, and not just in the cardiac programs. I've been to meetings just like this where the attendees are all behavioral health care professionals. They are very interested. You'll see the experts on that particular type of care, such as the cardiac programs, speaking to rooms of people about how they're doing it, why they're doing it, and what their results are. So it seems like, within the behavioral and medical community, they're taking many active steps to try to become more skilled, more involved with these kinds of offset programs, probably because they've provided the historical, traditional style of behavioral health care delivery for quite some time now. Maybe they're excited about new alternatives and new programs. Even within benefit designs, we're starting to get away from the traditional 30-day, 20-visit design, partially because of all the carve-outs, but also because of the continuum of services, new techniques, new programs, and just new things to try to promote wellness, as well as the interaction between the medical side and the behavioral side in delivering care.

Mr. Jeffrey L. Smith: Have you seen empirical development of these overlap rates, or are they negotiated in order to provide some predetermined limitation for upside and downside risk-sharing?

Mr. Melek: There's more in the latter example. There's not really a right answer. If there was a right answer, it would most likely be tied to some sort of a study. And

again, like in some of the prior comments, that would be just one study, and it could be shot at from different sides anyway. Some of the most interesting meetings I've ever been at, we are trying to agree on some type of risk overlap. The providers have lively discussions in that area.

Mr. William C. Cutlip: My question is, who's going to fund this? As I understood what you said, in an example you gave, the HMO won't participate. So you're going to continue, as an employer, to do the same funding to the HMO. Now you bring in the behavioral care program, so there's a cost on top of that. Yes, you can demonstrate that there would be savings on the medical side that would result, but can you be assured that your HMO cost will go down when that savings results?

Mr. Melek: First of all, the base behavioral benefits are there somewhere, unless you have a health plan that's excluding the behavioral benefits. I know that there are still plenty of what I'll call discriminatory benefit designs out there. Let's assume I enroll in a Denver area HMO that my employer offers for my family. Within that HMO, it may carve out behavioral health care services, so I would really already be paying for it. My employer's paying for it, I'm paying for it, and the HMO is getting revenues for it. It's turning around and giving a piece of that either to a carve-out company, or within it's own team or system, it's already providing behavioral health care. So I'm not really looking at new incremental costs anywhere.

Now let's assume that you're the HMO, and I'm the behavioral carve-in program. You're my parent company and I'm the behavioral organization within your company. You give me \$4 PMPM to provide all these benefits. Then we say we're going to set up this new structure where I can make some money for my behavioral carve-in organization if I can reduce the HMO's costs through whatever I do. It's up to me, if I want to spend more, you're still not going to give me any more than \$4. If I want to spend more than what I might have otherwise spent, perhaps \$3.80. That way I'd make a 20-cent profit if everything came in according to projections. But now I'm going to spend \$4.05; I'm going to go in the hole and take a loss and start up these new behavioral intervention programs. I will train my psychiatrists to do these cardiac rehabilitation interventions and Early Start programs, and go after panic disorder patients in the emergency room. That's going to cost me money to startup. Maybe I can get some sort of a pilot funding through somewhere, or maybe I just take that on myself, knowing that I really believe this is going to work. I'm going to spend the money because I really believe I'm going to more than make up for it through the medical cost offset savings. So if anyone is spending more money, it's the behavioral organization. It is really going at risk, to some extent, to share in a potential pool of savings. Those savings might be down the line. The program may end up running at a loss for the first six months, year, or two years, until the

programs are really well entrenched and working well. Then it might see the savings, although some of these savings really are kicking in a much shorter time period.

Mr. Sutton: One of your last slides discussed the data information requirements. My guess is that most carriers, third-party administrators and HMOs, cannot get the detailed data that you're talking about. I'm not saying the savings track wouldn't be there, but you're saying carve-outs with selected people, or follow 300 consecutive patients, or something like that. That's much different from having it in the system and being able to pull it out automatically to see if there were savings, particularly as you get more and more single illness or critical episode cases, where you want to provide counseling to help the person recover from that illness. I would say the data collection systems of the HMOs have always been a weak link, and they're spending millions and millions of dollars on systems that sometimes really don't do the job that they think they're going to do, as you've probably seen.

Mr. Melek: I agree entirely, and this one of the real sticking points. If you have a very specific approach, even if it is the greatest design, but you can't implement it, it isn't going to go anywhere. It's a pain sometimes to be tied to what you can do through your systems; sometimes that applies to many different management activities, and this is just one illustration.

Mr. Thomas P. Edwalds: Steve, I wondered if you could comment on what opportunities you see for SOA-sponsored research in this area, and to what extent could people contribute to such an effort?

Mr. Melek: To the extent that your own organizations, even on a small scale, do any of the stuff I've talked about, those can be opportunities for research. I'm sure I haven't hit all the opportunities. I'm working with clients who are working with Early Start programs and emergency case-finding programs, and these sorts of things. Much of it is in the discussion stages, because it's still really early on the whole curve. If your results aren't so confidential that your organizations would not allow it, you could put together a white paper or institute some sort of a research effort to produce studies that tell how this is working. I know that a full-blown intercompany study on this really would be very difficult. I'm actively working with the AMBHA on some new research. I want to get this concept we've discussed into some of the things it's doing. AMBHA represents about 80 million covered lives, so there's a good potential there. But, again, as the question was raised, management information systems are key. Insurance companies I've worked with are paying many of these claims based on many detailed results through their systems. So they might have DRGs and CPTs and a lot of detail so you can pay everybody properly.

If you've got that detail and can do any of these sorts of studies, I would think it would be great, and I would imagine the SOA would think so, as well.

Mr. Marlin M. Mueller: I'm really very impressed by the differences we see in the M&R study between the elevated risk and the low risk. I was wondering if there was anything in there that would indicate how effective behavior health care intervention was in moving groups from one category to the other. Would those people who were treated and moved from one group to the other then perform more like the moderate risk, or would their health status be such that they would still perform at the high risk?

Mr. Melek: That would be a great follow-up study, but it was not a part of this study. It was not cause and effect. It's like taking everybody in the room, classifying them, and then studying their claims based on that classification over a window of three or four years, and then comparing the results, to try to say how much potential correlation? But as a great follow-up study, why not try to get some behavioral interventions to move those elevated risk people in all of those ten different categories to low risk? Then, two or three years out, reevaluate their level of risk. Are they still high or low risk? Then compare, once you can normalize, and try to unbias it. Here's what it used to be. Trend it for inflation and managed care and everything else and determine how much, potentially, the behavioral reclassification affected the results. I think it's a very good idea for a follow-up study.