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MANAGING AMBULATORY CARE

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- Physician visit frequency
- Multiple testing
- Benefit design
- Information gathering and analysis

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Our subject is one that is quite interesting to me because I do a lot of consulting with managed care organizations and hospitals and physicians. If you pay attention to the media at all, you can't help but notice all of the articles and discussion about our health care system. There has been a lot of publicity about what has happened in managed care or, rather what has not happened in managed care that should happen.

In a recent article in the *New England Journal of Medicine*, there was a proposal by a group of physicians on a national health care plan. To begin, they said, "America's health care economy is a paradox of excess and deprivation. We spend more than 11% of the gross national product on health care, yet roughly 35 million Americans have no financial protection from medical expenses. To an increasing degree, the present financial system is inflationary, unfair and wasteful." I want to emphasize that last word "wasteful," since that would apply to our discussion.

In Tuesday's *Wall Street Journal*, there was an article entitled "Government Takes Aim at Outpatient Charges" and I'll just read a couple of statements from that. "The federal government has quietly commissioned a new approach to reining in one of the fastest rising cost areas in health care -- outpatient treatment. The new system would use so-called ambulatory visit groups or AVGs."

In the opening session at the Health Care Symposium, there was a statement made by a particular individual who had the opinion that we would have to remove from the physicians both the right to set price and the right to decide what services to deliver. Now, that's a pretty bold statement. I don't agree with it wholeheartedly, but I do think that we're moving in that direction.

At the recent Group Health Association of America/Health Financing Management Association (GHAA/HFMA) meeting, the question was asked, "How long does it take to teach a physician to manage care efficiently?" Well, the response was that some doctors do it efficiently and some don't. And, there's probably not much chance of teaching those who don't manage care efficiently

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to change so that they can do it efficiently. There was the opinion that maybe a few of them could be taught to make some changes, but most had no desire to be taught and weren't willing to change their habits. UCLA Medical School has recently added a course on how to manage health care delivery. That's a curriculum item that hasn't been in most medical training to date.

Inter Study recently reported that HMO members averaged four physician visits per member per year in 1987 and that was up 17.7% from 1982. GHAA recently released a study that showed that outpatient visits per member per year jumped from 3.9 in 1985 to 4.4 in 1986.

I did not pour over a lot of publications looking for this kind of information. It just came out in the various materials that I recently read. So, if there's this much information floating about on managing care, and in particular managing ambulatory or outpatient care, somebody needs to sit up and take notice. I think, as actuaries, it's very important for us to consider this change of emphasis in our pricing equations.

Over a year ago, our health care consulting practice in Seattle started talking about ambulatory care, how it can be managed, who ought to manage it and how this can be measured. One of the things we did was talk about what indices we might be able to measure that could help providers and health care carriers in deciding whether or not they were doing a good job. Let me just list some of the ones that we came up with: the diagnosis and treatment and whether it was appropriate; the level of diagnostic testing; the level of referrals; the number of surgeries and where they were performed; prescription drugs and how many were prescribed; how often generic drugs were used; the percent of the time that physicians would follow established protocols; and the extent of use of paraprofessionals.

I don't have a lot of statistics that I can give you on these particular indices, but we felt that if as actuaries we could arrange to work with a physician who had the ability to understand how these criteria were being met from looking at patient records we could then express, in numerical form, how well people seemed to be doing at managing the ambulatory care. Because the issues seem so important in the kind of consulting that we do in the M&R Seattle Health Practice, we developed what we call our health care management guidelines. With this we help hospitals, physician groups, and HMOs create a framework that they can use for measuring their ambulatory care delivery and for establishing more efficient delivery practices.

So, as you can see, I'm one who believes that the managing of ambulatory care is possible and is a phenomenon that's going to grow increasingly over the next few years. Our panel was put together to strike a little bit of controversy over the issue. Patti's perspective, as a utilization manager or Director of Utilization Management at the Blue Cross/Blue Shield Association, will hopefully be a little bit different than the perspective of Dr. Fischer, who is the Medical Director for an HMO. He therefore has to deal with the physicians and try to get them to change their habits. Dave Burch does his consulting work with large employers and so his perspective should be a little bit different still. Dr. Mutterperl will, hopefully, express the opinion of a private practice physician who has to put up with all the constraints that are put on him by managed care organizations.

Patti is a registered nurse. She worked for the Health Data Institute and helped to establish and refine the agency expense and performance (AEP) criteria. She worked for Deloitte, Haskins & Sells as a cost containment consultant. She has been involved in provider contracting for HMO Illinois. She's been at Blue Cross/Blue Shield for six years. She's worked on precertification and some other programs and now is Director of Utilization Management.

Dave Burch is a consultant with A. Foster Higgins. He has been there a little over a year now and prior to that he worked as a group actuary at Pacific Mutual Life Insurance Company.

Dr. Fischer is a general internist, board certified. He practiced for 31 years and is now Vice-President of Medical Management for Health Chicago.

MS. PATRICIA A. ARMOCIDA: I will be speaking about some of the outpatient utilization management initiatives and I would like to cover five areas. What I'd like to do is give you a little background information on some of the outpatient cost and utilization trends; talk about some of the factors that have caused the shift and the increases; talk a little bit about how we

define and group some of the outpatient services; then move into the focused application of utilization management in this arena and wrap up by talking about what I think is the future direction.

In talking about some of the general trends, I think it's important to keep in mind that on the outpatient side, we have both a price as well as a use problem. Although my expertise is in utilization management, we have benefit packages and methods of reimbursement that are problematic in terms of covering many outpatient services still on 100% of charges or a percent-of-charges basis. In some cases we have benefit packages still in existence offering incentives such as 110% of reimbursement if a surgery is done in a physician's office, for instance. So, it's important to remember there's price considerations as well as use, although I'm going to focus on the use side.

The medical CPI, for the past eight years, has been increasing at a rate far higher than the general economic index. The trend, of course, is that outpatient services are consuming more and more of these dollars. The government certainly has been focusing, as most major payers, on the inpatient side, especially with the advent of diagnostic related groups (DRGs) in the early 1980s. However, Part B of Medicare, which is the physician service side, is suddenly showing a significant increase in terms of the Medicare expenditures. Some of the analysis that's been done on the Medicare side has shown that 70% of that increase is due to increased physician payments and that 30% has gone to hospitals. Physician payments in Medicare have increased almost 20% in a two-year period and a third of that was due to increased services that were being rendered.

On the private-sector side, the employer side, the two important trends are the increases in benefit coverage on the outpatient side, which, in fact, is largely good news, and the increased expenditures that were a result of that. I think in 1974 only about a third of employers covered outpatient services in any sort of comprehensive way. Virtually all employers have comprehensive benefit coverage on the outpatient side.

The reaction, then, on the expenditure side was that in 1983 about 20% of health care dollars went to outpatient services and now about 50% of the dollar is being spent on the outpatient side. Experience in Blue Cross/Blue Shield mimics what the rest of the country is experiencing. The rate of visits in Blue Cross increased about 35% in a four-year period, but even more problematic is that the average cost of those visits increased 88% in a seven-year period. When you look at the factors behind the outpatient shift, it's interesting to see when the shift started and what some of the factors are that are contributing to it.

The shift in outpatient care has actually been occurring most rapidly in the past 20 years. The first outpatient clinic opened in the early 1900s. It's interesting to look at 1968, which was only about 20 years ago. The first outpatient surgical center opened in Rhode Island and that closed as a result of inadequate revenue. That's no longer a problem today. In 1970, the first successful or financially successful, free-standing surgical center opened up in Arizona.

Certainly the medical technology has increased rapidly. What's been disturbing is that many of the new technologies are not, as we had hoped, acting as a replacement for a former technology, but acting as an add-on. A good example of that is coronary angioplasty, which was introduced and heralded as something that would replace coronary artery bypass grafts. It has not affected the rate of those surgeries at all. Those surgeries have continued to grow at an increasing rate, while angioplasty is catching up fast to those surgeries. Outpatient procedures are safer and most of this is due to developments in anesthesia management. Some of the physician influences are that there's tremendous competition among physicians. There used to be about 148 physicians to 100,000 people in 1960. That's risen 52%, to a rate of about 225 physicians per 100,000 people. There's suspicion that this influx of supply, in order for physicians to maintain their incomes, may be generating unnecessary tests. Another factor in the physician arena, and a legitimate one, is the concern about malpractice and consequently the ordering of tests in a defensive mode.

A study done by Blue Cross/Blue Shield of Michigan in 1983 showed that physicians who had investments in lab facilities ordered 66% more tests than physicians who were not investing in those facilities. One of the institutional changes is certainly growth in both medical outpatient as well as surgical outpatient facilities. On the medical side, primary care facilities grew from 180 to 4,000 in 1987. On the surgical side they increased from 239 of these facilities in 1983 to 650

last year with an expected 1,350, or a doubling of that number, by 1990. Some of the issues behind why there hasn't been a lot of outpatient utilization management activity or, in fact, effective utilization management activity in this arena is the fact that most of these services represent high-volume and low-cost items, which are very difficult to track. Patient access is a concern on the outpatient side in that you don't have physicians necessarily controlling the consumption of services. Patients can come and sit in a physician's office and make the decision that they want to see that physician and typically don't feel good unless they leave with a prescription or an order for a test in their hand.

There's a wide diversity in the number of providers and very few guidelines in the outpatient setting to determine what is, in fact, appropriate care. Utilization review administrative costs, in terms of doing things like preadmission or concurrent review, need to be considered in the outpatient setting as to whether or not they are, in fact, cost effective. As I said, I think that pricing issues are a major concern on the outpatient side. Many hospitals are now operating at about a 60% occupancy rate and outpatient services now account for about 20% of their revenue. It's felt that they're funding many of the deficits on the inpatient side through outpatient charges. Initially, it was expected that outpatient surgery and outpatient services should, in fact, be less expensive than their inpatient counterpart. A study of four procedures showed that it was estimated that these procedures should cost about half as much on the outpatient side, when, in fact, they ended up charging about 90% of the inpatient cost. A graph from the American Hospital Association shows the greatest increases in development are in home care and outpatient surgery. The insurers have played a role in fueling the use of the outpatient side and that's been primarily in the design of more and more outpatient benefits, as well as increased selective contracting. Blue Cross & Blue Shield, along with the government, have developed ambulatory lists whereby these procedures are only paid for on the outpatient side and are usually paid at 100%. We refer to outpatient services as covering the whole gamut . . . from hospital outpatient to physician office, chiropractic visits and all of the associated ancillary tests.

Probably the easiest way to pull all these services together is to bundle them in terms of high cost and low volume, which are outpatient surgeries and major diagnostic tests, such as magnetic resonance imaging (MRI), knee arthroscopy, etc.; and then low-cost, high-volume services. This would be things like simple office visits and the associated lab tests that go along with those visits. The other reason for separating them in this manner is that when you start talking about utilization management, the approaches in each of these are very different.

Utilization management in the outpatient arena should, in fact, be a focused review program. By focused review, we are talking about identifying through data analysis and concentrating utilization management activities where provider services, diagnoses or geographic areas are identified as being problematic. This type of review is more efficient because administrative costs are aimed at where the problem areas are. It's more effective because you're aiming, again, where there's greater variability and more of an opportunity to affect a change. And lastly, it is flexible in terms of applying to different problem areas. These are some of the types of problem areas that should be looked at.

The first is the patient who potentially is a high user of services in the HMO, traveling from primary care doctor to primary care doctor in the fee-for-service setting, consuming and demanding a lot of services or overusing the emergency room. On the provider side, our experience is that about 5% of the doctors are responsible for about 75% of the claim kick-outs and ultimate denials, which means that about 95% of the doctors are probably practicing in a relatively cost-effective manner. Certain diagnoses are especially problematic in the outpatient setting and those are things such as chronic illnesses, hypertension and diabetes. Acquired Immune Deficiency Syndrome (AIDS) patients, are also expected to be high consumers of services. And then finally is the question of whether the treatment itself is appropriate or needed, whether a surgery or a major diagnostic is going to yield anything for this patient.

There are estimates that about a third of the procedures performed are, in fact, unnecessary and put the patient at additional risk. An outpatient utilization management program should have two components. The first component is a data analysis and problem identification capability. The purpose of this is to develop base line or benchmark information on usually a provider-specific basis. (Providers are grouped in a peer-grouping basis to develop the expected norm for that group.) That identifies both the aberrancies on the high side, which may be cost concerned, and

the aberrancies on the low side, where there might be a concern about quality or underutilization by those providers. Small area analysis can be used, especially with multistate employers or multiregion or location employers, to identify different problems for different employee groups. The auto workers in Flint, Michigan may have a problem with podiatric services and the auto workers in Dallas, Texas may have a problem with open heart surgery. It doesn't make sense to be requiring all those employees to go through every utilization management program. And lastly, once providers are profiled under the state analysis method, it's been shown to be very effective to feed this information back to them. There's a tendency to do a tremendous amount of data analysis and identify where problems are and then not let the problem physicians know that they're being more closely scrutinized. Feedback programs send information back to the physician in a confidential manner and these physicians should then be reprofiled after about six months. Physicians or providers who continue to perform in an aberrant manner should then be monitored a little more closely, perhaps doing office record review for whether the services that are being performed are, in fact, medically necessary.

The second component, once the data analysis is completed, is to put into place some of the intervention programs. On the high-cost and low-volume side (the surgeries and the high diagnostics) the following utilization management programs can be considered: preservice, preauthorization or precertification of those procedures may make sense with certain procedures where there's a suspected high rate of inappropriateness. The procedures that are most targeted are procedures such as knee arthroscopy and some colonoscopy-type procedures. Blue Cross/Blue Shield is working on a pilot project with Value Health Sciences. They have developed preauthorization criteria for 35 in- and outpatient procedures. What's different about this in the outpatient setting is that you're now questioning, truly evaluating, the medical necessity of the procedure. Inpatient review largely looks at whether or not services could be rendered on the outpatient side. You're now questioning whether or not the patient needs that service at all. This really involves a tremendous amount of physician input in the development of the criteria because the criteria must have clinical validity. Second surgical opinion in those preservice review programs or preauthorization programs, once a software system or a review nurse is working with one of these systems, identifies that a procedure may be inappropriate. That individual may be then sent for a second opinion. I know there's been a lot of scrutiny about the cost effectiveness of second opinions. However, in this arena, I think you're going to find a resurgence of using this technique.

Some of these cases may go to case management on the outpatient setting, especially cases such as the AIDS patient. Most case management has focused on the inpatient side, trying to get people into the outpatient setting, but it will now follow through to make sure the person is receiving adequate services, potentially preventing readmission. On the low-cost, high-volume side, it doesn't make a lot of sense to preauthorize chest x-rays or a complete blood count (CBC) and other blood counts, so provider profiling in the data analysis techniques are most heavily used there. Some of the newer developments in this arena are the development of what I call medical footprint software. Programs such as Patterns of Treatment, the Iris Corporation, and MHC are software, that on the basis of diagnosis and using physician criteria as well, estimates what the expected amount of resources consumed by this type of patient should be in a year. When a claim comes in that falls outside of that expected basket of services, that claim is kicked out for additional review as potentially inefficient care. Patients or diagnoses that show there is potential underservice may be investigated for quality problems. Concurrent review may be applied where there's a series of services, such as psychiatric, chiropractic and some of the therapies, such as physical and occupational, whereby a review organization may elect to automatically preauthorize the first three visits, but then monitor the continuing need for any further visits.

I'd like to wrap up by talking a little bit about where we think things are going in the future. Under the issue of managing price, which I think is equally as important as managing the utilization side, there's going to be an increase in selective contracting for outpatient services; focusing mostly on lab, x-ray and stand-alone capabilities, such as lithotripsy, MRI and computerized axial tomography (CAT) scanning. We anticipate an increase in co-pays on the outpatient side as a way of throttling back on what is an open checkbook on the outpatient side. In some of the psychiatric and series type of services, the first three to five visits are now being rendered at 100%, with a copay being introduced in subsequent visits. There are more situations on the outpatient side where providers are being put at risk. There's a lot of work underway to look at things such as outpatient diagnostic related groups (DRGs). Fee schedules will replace

100% coverage of charges and hold harmless clauses will become a standard part of all selective contracts, and the hold harmless will apply to retrospective denial of claims for medical necessity.

The winners and the effective programs on the outpatient utilization management side will have to have, first of all, very sophisticated claims data analysis capabilities in order to identify problems. There will be a proliferation of preauthorization programs and not always appropriately so, but I think it's natural for employers to want to apply a program to the outpatient side that they think has been relatively effective on the inpatient side. So I think you'll see second opinion lists starting to add outpatient procedures. These programs will be flexible. What may be on a list one year, may not be on the next year. Physician profiles will increasingly become a part of selective contracting activity and decisions. Provider-owned and invested facilities will be more heavily scrutinized by all payers, starting with the federal government and more data analysis will be done. I think there will be more creative thinking about what to do about problem patients.

The biggest issue in outpatient utilization management is, in fact, facing the medical necessity question. And this is identifying, prior to a service being rendered, when a service is medically necessary and refusing to pay for that service. It cuts right to the heart of the science-versus-art debate in medicine. Is there, in fact, a prescribed standard in medicine for doing many of these procedures? There's been a fair amount of development just recently that says yes; that the bulk of medicine can be described and what should be expected can be put down on paper. A lot of developmental work by the American Medical Association (AMA) and the Rand Corporation, as well as companies such as Value Health, are supplying us with criteria that can be, very successfully overlaid on most of medicine to determine where overutilization is occurring.

Certainly this type of review makes the legal department uncomfortable because of potential steering of a patient away from receiving a service. I think another financial issue is what is the net savings is of doing preauthorization; there's a need for some longitudinal studies. If, in fact, you talk a patient or a doctor out of doing a knee arthroscopy, what other services are then consumed or how long is it until that patient, in fact, goes back and gets that knee arthroscopy? So, did you, in fact, save money in the long run? When you do this level of data analysis, it becomes very clear that there are some quality problems among some of the providers that you're dealing with and anyone who gets involved in this review needs to make a commitment to getting more aggressively involved in quality assurance activities, which is probably a good thing to have happening.

What I'd like to say in conclusion is that, essentially on the outpatient side, we've got a benefit and a price and a utilization problem all tied up together. The most effective outpatient utilization management programs will, in fact, be ones that are focused on problem areas and not necessarily a blanket program overlaid on all services.

DR. CONRAD S. FISCHER: When Dennis called and asked me to give this talk to a group of actuaries, I absolutely panicked. I don't like to play in somebody else's ball park, with their ball and bat, and I decided that it was a mistake to get into number crunching because it would be somewhat of an unequal competition. So I decided that the best thing that I could do would be to talk a little bit about what I've observed over the past four or five years since I've been in managed health care.

I was a private physician, doing pretty much what I thought was appropriate for the patient. I moved into an individual practice association (IPA) setting as a medical director and saw the numbers and what could and couldn't be done; I thought. I then moved on to the HMO setting, where we have about 2,000 physicians, and I look at managed health care from that direction. I'm not sure the whole thing is possible in spite of all the things that we do.

I've spoken to Paul Elwood on several occasions on what HMOs have done and he has been disillusioned, I think as well as many others. The cost of medical care and the expenses have continued to rise, and probably will continue to rise. What are the constraints and what is required to change that pattern? Let me quote from *Alice in Wonderland* when Alice first met the Cheshire Cat and didn't know in what direction they were going. "It doesn't matter which way you go, as long as you keep on going and you might get some place." In this case, a physician is substituted for Alice.

I used to do just medicine, but now I'm in economics; this is true of most of the physicians, however you slice it. There's a very interesting book, by the way, written in about 1926 by E. B. White and illustrated by James Thurber. For those of you who are somewhat older, these names will be familiar. For those of you who are younger, perhaps they're not quite so familiar. The book was called, *Is Sex Necessary?* It really had very little to do with sex. It had more to do with the relationship between men and women. During the course of the discussion in the book, the lecturer put up a picture of the sea routes of the North Atlantic and he thought that was about as useful as a map of the human body in discussing sex. That's probably so in discussing managed health care as well; i.e., many of the statistics and all the things that we do are very nice. I have reams and reams of statistics coming onto my desk on a daily basis . . . innumerable numbers. And we try to break them out and try to figure out what to do about it and it is very difficult. I'd like to comment then on what I think the directions are and what some of the problems are as I see them.

As far as the inpatient utilization of services is concerned, we've just about ratcheted it down as much as we are going to ratchet it down. We've gone from 600 or 700 days per thousand in a commercial group of patients under 65, down to somewhere closer to 300; perhaps slightly less, perhaps slightly more depending on the mix of patients and the severity to which we scrutinize the various problems. But the ambulatory side of the equation and the expenditure of the health dollar has not been addressed nearly as accurately or as successfully.

At the IPA level, I found that the greatest expenditure and the greatest problems that we had were getting the doctors to cut down on the amount of ambulatory or referral care, which included x-rays, laboratory and referral to specialists. And the interesting thing that I came across statistically is that at the IPA level, where we had about 40 primary physicians, compared to the HMO level, where we have about 800 physicians, the number was exactly the same. About 70% of the available dollars were spent on referrals in both instances. In order to break even or to be successful, that number has to be ratcheted down to approximately 55% in both settings, as we understood them. I think that this is a reflection of the finite dollars that we have available to us to spend for all care.

In the gatekeeper concept, as we know it, the primary physician must be the consummate clinician. When I started in practice, and continued in practice over the many years, we didn't have all of the tools and technology available to us. A diagnosis was often made by the history of the physical and the few tests that we could do . . . a blood count, a urinalysis. The patient might then have surgery and everything seemed to go all right. Now, nobody gets care unless all of the very fancy tests are done. So, I'm suggesting that although the concepts that Patti eluded to are correct and desirable, I think it comes down to a physician, a clinician who, using his five senses, can still do just as well with just as fine statistics.

The problem as I see it, however, is that most physicians are not trained appropriately in managed health care. In most hospital settings, most university settings, almost all the time of the medical student is devoted to inpatient care and actually intensive care. A good bit of the time is spent in both the medical and surgical intensive cares, and the cardiac cares. Yet percentagewise, the number of encounters that will allow one patient to go into the intensive care is about one in 25,000, so the average physician practicing medicine will probably never or very rarely encounter the kinds of patients he will see on a regular basis during his training period.

Up until very recently, almost no emphasis was made on ambulatory care. I attended a recent conference at Harvard. They have an excellent HMO setting there at the Harvard Health Plan and they are now focusing their residency training on ambulatory care. There is one professor to one resident. They have recognized too that the issue and the cost containment is not based on inpatient care, but outpatient care. To move that one step further, the intensive care and the acute care setting will probably be handled by hospital-based physicians doing just that kind of work and all the other care will be handled by physicians in their offices. So, the medical schools have to direct their attention, as well as the residency programs, to the management of that type of care.

The capitated services can be well controlled, in a sense, by actuaries. Actuaries come up with very accurate numbers based on past experience. This is how much should be spent -- $9.00, $10.00, or $5.43 or whatever the number happens to be. But that does not take into account, at all,

what the doctors actually do. So, it is my feeling that in order to satisfy the managed health care concept and the control of costs, the physician himself has to be placed at risk. Now, the question is whether that risk is based on a capitated service or a fee-for-service basis on which the experience rating takes place and capitation is decreased or some withholds are made. It's all well and good to talk about the protocols of how things should be done in an office, but it is my contention that unless the physician himself is at financial risk, very little will actually be accomplished.

I think money is the issue. I've seen doctors. You try to control them with merit badges and pats on the back, but in the final analysis, the only thing that seems to work, from my experience, is that he looks at what he has done on the basis of money. Unfortunately, that gets into the second category: quality.

The quality of care actually must be foremost because without that, I think the whole system is going to break down. We have seen, in our experience, both at the IPA level and more so at the HMO level, that those physicians who ratchet down the number of tests they perform, the referrals that they send out, often have very poor quality; member complaints correlated with their utilization is very significant. And these member complaints may take a variety of different patterns, such as lack of access or unprofessionalism and so on. If we don't focus on quality, we'll all be in serious trouble in the long run.

Now, important to all of this, as far as I'm concerned, is that the data must be available to the physicians so that they can review what they do compared to their peers. I also found out that even though we have the data, some doctors are really not very good performers compared to their colleagues. Access to data didn't make much difference anyway. They continued in spite of peer pressure. Now, I originally thought that peer pressure would be extremely important in the way they evaluated their patients. But, some doctors are very uncomfortable if they don't order an MRI or a CT or a colonoscopy and so on, on every patient they see. Again, the data has to be satisfactory. It has to be complete.

I think there are two criteria: First, I think that the physician should be well selected for his ability to manage care. I don't know if that selection can be made in advance. The second is that having identified some physicians and trying to train them in whatever techniques are available, which is difficult at best, the draconian measure of eliminating them from the system is necessary. How that would work in the long run or in the future of medical care is questionable. I feel that a national health policy of some sort is to be developed and I think that all doctors will have to participate in the system. Therefore, their training will have to include all of those measures. One last quote from *Alice in Wonderland* -- "you have to run twice as fast to stay in the same place." That is our situation.

MR. DAVID LEE BURCH: Before I start with the body of my talk, I think it's kind of interesting to note that when I first started in group insurance about five years ago, I was working with Dennis on pricing some of the first PPOs in California that were established in the country. I think this was one of the first attempts by indemnity plans to influence medical care. Since that time, we've had things like utilization review (UR), case management and second surgical opinions. And now with the increases in outpatient costs, we're seeing a new wave of new cost containment techniques. It's amazing to look back just five years and see what has gone on.

My talk will focus on managing ambulatory care and indemnity plans. I'd like to start by discussing some of the recent increases in national medical expenditures and the claims costs or increases from an indemnity plan case study. Next, I will identify some factors influencing costs and show some supporting data. I'll review the impact of the current cost containment programs that have been implemented in recent years, and review some of the new programs that are being considered and their potential for limiting outpatient costs. Finally I'll close with some remarks on what I see in the future for indemnity plans.

Outpatient costs, as Patti said, have been rising for about 20 years, but there's been a sudden shift from inpatient to outpatient that began with the implementation of Medicare diagnostic related groups (DRGs). American Hospital Association data based on community hospitals shows that the number of inpatient admits began dropping pretty substantially in 1982 and then began leveling off in 1986. The number of outpatient visits and the number of outpatient surgeries started a

dramatic climb in about 1985. I think that's part of the reason we're seeing such major increases in indemnity claims costs.

While the national increases in medical costs have been increasing about 9% a year, the employer indemnity costs have been increasing at a much higher rate. Some contributing factors have been HMO adverse selection, cost shifting from government to private insurance, and the lack of control on provider fees and provider utilization.

What I'd like to review now is a case study for a large, northeastern U.S. employer. This employer had over 50,000 employees and claims were compiled for the period of April 1986 to March 1987 and then again for the subsequent period. We then compared the claims from those two different periods. The case had HMO penetration in the first year of about 22% and it gradually climbed to about 24% during the second period. Psych and substance abuse claims were not included in this analysis.

The increase in overall claims between the two periods was 23.7%. While this is larger than our recent average of about 18% for large cases, it's not an unusual rate increase.

Looking at the utilization increases between the two claims periods, we see an actual 3.5% reduction in the number of inpatient admissions, but a 6.9% increase in outpatient surgeries and a 4.5% increase in the number of outpatient hospital services.

Next, we looked at the amount of charges per claimant by category. This represents the total amount of charges in each category divided by the number of claimants who received at least one claim in that particular category. Inpatient surgery cost per claimant increased 14.1%; outpatient surgery 28.5%; inpatient medical 14.8%; outpatient medical 15.1%; the outpatient x-ray and lab increased 71.5% and other x-ray and lab 21.9%. A large reason for the dramatic increase in outpatient x-ray and lab charges was the separation of hospital radiology units into separate billing units. So, you can see that there's a large increase in cost per claimant for all categories, but especially on the outpatient side. The increase is probably largely the result of some HMO adverse selection, as well as an increased number of tests. A major contributing factor is just the shift from inpatient to outpatient because that increases the average intensity of service needed for the remaining inpatients, but it also increases the average amount of intensity needed for the outpatients.

Next, I'd like to talk a little bit about the factors influencing the increase in outpatient care. Unfortunately, it's difficult to exactly quantify the impact of the different factors, so what I'd like to do is display some data, which will hopefully provide some insight into the increases.

Cost shifting, as you know, results in an increase in the charges incurred by indemnity plans. It's difficult to measure this, but it's very evident in Southern California for the few remaining hospitals that still take Medicaid patients. Because the Medicaid reimbursement is so low, these hospitals are generally in pretty bad financial shape and their indemnity charges are much higher than the average hospital.

To try to get a feel for a physician cost shift, we took two surveys of usual, customary and reasonable (UCR) charges. One was based in March 1987 and the next was based one year later in March 1988. We took a weighted average of these UCR values and found that the increase was 8.9% compared to a 7.1% increase in the physician component of the CPI.

Data shows that there's been dramatic increases in tests, but it's difficult to isolate whether it is because of defensive medicine, attempts by physicians to maintain income, or advancements in technology. We looked at claim data of a Third Party Administrator. The data was coded according to the Physicians' Current Terminology (CPT), and consisted of primarily Southern California claims. We analyzed claims from two different experience periods. One was centered in January 1987 and the next was centered in August 1988, so there was just a 19-month difference between the two experience periods. We measured the number of chest x-rays, blood tests, and urinalyses per office visit and found a 50% increase in the number of chest x-rays from one period to the next; a 29% increase in the number of blood tests per visit; and a 33% increase in the number of urinalyses. Some of the 50% increase in chest x-rays might be the result of some shift

from inpatient hospital treatment to outpatient, but overall, I think this is a dramatic example of the recent increases in tests.

To try to get a feel for the impact of defensive medicine, we looked at the obstetrics (OB) area because of the recent dramatic increases in malpractice fees and obstetrician fees in that area. We calculated the number of prenatal stress tests performed in a Southern California hospital over the last few years. These tests are performed on an inpatient basis as well as an outpatient basis and they're used to measure the fetal heart rate of babies that are suspected of being at risk. The number of these tests, per delivery, that was performed in 1986 was .74%. This ratio climbed to about 40% in 1987, about another 35% in 1988, to the point in 1988 where there was about 1.4 tests per delivery. It's also interesting to note that although the cost of the machines utilized in doing these tests actually dropped, the charges in 1985 for these tests were about $75.00. They increased to about $150.00 in 1988. There was also a big difference in the number of tests that were ordered by individual doctors. One doctor ordered over 600 of these tests in the last six months of 1988 while an older doctor with slightly less patients ordered three tests in the same time period. I think this points out the lack of standards or guidelines for these testing areas, especially where there's new technology available and it takes a while for physicians to get used to that technology.

Another contributing factor to rising outpatient costs has been the emphasis of the old cost containment provisions on managing inpatient costs. Until recently, the utilization review programs emphasized limiting admits and hospital days, but as we saw in the case study, you can have a reduction in the number of admits and your claims can still increase 24%. Also with PPOs, the hospital contracts have received, generally, pretty competitive per diems for Med/Surg, intensive care unit (ICU) and OB, but generally on the outpatient side, they've negotiated 5% to 15% discounts off the hospital's standard fees. Typically, the employer or the PPO has no idea what these standard fees are nor do they know when these fees are increasing.

PPOs have no gatekeeper provisions and generally have little control over their physician utilization. It's said that using a PPO doctor is like going to a high-volume discount store. You get a great price, but you end up buying a lot more than what you need.

Another PPO problem that we've seen recently is primary care physicians frequently referring to non-PPO specialists, such as radiologists and pathologists. The PPO has been forced to pay these non-PPO specialists at the PPO benefit level because the patient followed the appropriate PPO protocol by going to the PPO primary care doctor. Three to four years ago, many employers introduced outpatient surgery incentives that provided 100% coverage for a focused list of surgeries or for all outpatient surgeries. I didn't really feel that these influenced the treatment to outpatient care very much anyway, but I think their negative effect on claims has increased recently. The number of outpatient surgeries that would have been performed with or without these incentives has increased. Also, the increase in outpatient hospital charges relative to inpatient charges has lessened some of the value of shifting the treatment. Although many employers recognized that these outpatient incentives are actually increasing costs, it's very difficult from an employee-relations perspective to remove these incentive benefits. It's especially difficult for a benefits manager or a consultant who went to management just a few years earlier and claimed that these incentives were responsible for limiting indemnity plan claims costs.

There are many new cost management techniques that are being introduced now to try to focus on outpatient care. Most of the major utilization review (UR) vendors we've seen have recently implemented pre- certification of outpatient tests and high cost outpatient surgery. Particularly, these influence trying to manage costs on surgeries such as arthroscopies or cataract surgeries.

There was also a June 1988 article in *Business & Health* which discussed how Metropolitan has identified conditions which are responsible for extensive abuse on the outpatient side. They plan to use these findings and look at their claim data to intervene with providers and patients when they notice abuse.

One employer in the Los Angeles area has recently set up contracts with hospitals and surgery groups on a DRG basis. They're looking now at expanding these contracts to cover the outpatient costs by using the ambulatory visit group (AVG) method being introduced by Medicare. What this will do is hopefully pass some of the risk for excess cost back to the hospital.

On the drug side, we've seen drug card administrators starting to put computer terminals in each of the pharmacies. These calculate the appropriate physician's copay and allow the employer plan to establish certain maximum allowable cost formulas for drug classes, forcing the patient to pay the excess costs of nongeneric drugs.

In general, I think all of these new techniques have short-term potential for limiting costs, but in the long term, they're not going to be that effective. The outpatient UR program is generally only cost effective on high-cost procedures and tests. I also think it's going to be a little bit more difficult for employers to deny a surgery than it is to just recommend a change in the treatment or place of setting.

Finally, I think there's definitely potential for claims payors to realize savings by identifying provider abuse. On indemnity plans, however, it's going to be difficult for an employer to actually intervene with a physician. Also, I think this technique is only really appropriate where you have a high concentration of utilization with specific providers. Unfortunately, most large employers are spread nationwide and don't have that kind of concentration.

To get a little bit of an idea for the expectations of the future, I think it's kind of interesting to see what's happened in the recent past. Data based on Foster Higgins' employer surveys in 1986-1988 shows the percentage of employees enrolled in HMOs during the last three years. There's been an increase from 19% in 1986 to 29% in 1987 to 33% in 1988. The average HMO penetration of Southern California employers was actually 46% in 1988. I believe that new cost management programs will have some effect on limiting outpatient and indemnity costs in the short term, but in the long term, I think that HMO rates will still continue to climb at a slower rate than indemnity rates will increase. And just the growth in the HMO penetration puts even more pressure on indemnity plan costs as HMO providers begin to cost shift more to indemnity plans; this, again, fuels more HMO growth. My opinion, therefore, is that unless employers start to begin implementing plans that exercise control over physician fees and utilization and unless they start providing financial incentives for providers to utilize cost- effective care, they can expect their plan costs to continue to escalate at double-digit rates.

DR. ROBERT E. MUTTERPERL: A funny thing happened to me on the way to the meeting. I had a guest lecture spot in an open heart surgery that needed some expertise in my field, so I sat there with gloves and gown to figure out: How much am I getting paid for this? Should this have been done as an outpatient? Is Medicare going to approve or disapprove of this? And, wouldn't I rather be at the meeting drinking coffee and talking to a bunch of nice people? And I said, "No, I wasn't trained to do the latter. I was trained to do the first, so I better just sit down in this chair until everything's cleared and then I can get going."

I basically went into the HMO business, or became an HMO-practicing physician, or joined an HMO, or helped format two IPAs over the last five years because I was under the impression that managed health care would be a better way for me to practice. It would give me access to more areas of expertise. It would enable me to get patients into the proper treatment protocols faster, more efficiently, less expensively. I was quite naive back then.

What I realized from my colleagues in medicine was that you join an HMO to protect your turf. You join an HMO so that when your patients join HMOs, you can keep them as patients, lest you go into the dwindling patient volume syndrome. One day you see 20, the next day you see 15 and at the end of a year you are seeing 10. Soon you don't know what to do with yourself except maybe become a plumber. The biggest problem with physicians now facing managed health care is that everything we do is managed health care.

Managed health care transcends PPOs and HMOs. The biggest provider of managed health care in the United States is the federal government. If you don't think that Medicare is the most vigorously enforced form of managed health care in the country, come to my office and see the paperwork we have to turn out for Medicare. Come to my office and find that if I readmit a patient within ten days as of April 1st of this year, they can come in and get my outpatient records to support my inpatient choice as a treatment. And, if you have a nursing home patient, they can take all the nursing home records to make sure you saw Aunt Sadie on Tuesday and didn't miss her disease that you admitted her for on Thursday. So, managed health care is becoming the standard format for medical practice in this country, whether it's administered

through a PPO or an HMO, through the federal government, or through any one of the fee-for-service, utilization review corporations. Such corporations, some based in Chicago and some which operate on a national level, will call you and ask you why you're doing the particular procedure to a patient at that particular time. Everything is managed health care.

Again, physicians join managed health care for turf protection . . . the majority of them. The second reason is to hope that they will get an expanded patient referral base because HMOs would be an increasing source of new insurance patients. And lastly, and probably the most important for most of the physicians when you get right down to it, they join so it will have the least negative impact possible on their income so their practice can continue.

Now, one of the things I've heard here is about cost containment in practice. It's interesting, and I think we should clear it up right now. Never confuse institutionalized medicine, that is medicine dealt or given in hospitals, whether in the format of laboratory tests or admissions, with the private physician. Ninety percent of your private physicians have no idea how a hospital works. They don't know what a cost report is. They have no idea about direct or indirect costs. They have no idea about depreciation for capital expenditures and equipment, about strategies, about mission statements, about hospital affiliations, about how residents are reimbursed. We just don't, and I'm using the collective "We." I, unfortunately, do. Because they don't understand these issues, they really don't have a good idea about what this all means and how they have to fit themselves in or how things are changing. They've just begun to learn the gamesmanship that will be needed for practicing physicians to survive the next ten years. In ten years, the recent graduates of medical school will take over. They will, hopefully, have gone through a Harvard-like program and become very educated in outpatient management.

I was never trained to be an outpatient physician. I was trained to be an inpatient physician. In fact, I spend most of my time in the intensive care units and not on the general floors, so it became a transition that I had to learn through practice.

How to manage pneumonia that you don't admit to the hospital. How to take care of asthmatics that you don't admit to the hospital. So, in a large respect, what Dr. Fischer said was absolutely right. We haven't learned how to be good ambulatory care doctors and we're just learning that. The best ambulatory care experience a physician can ever get is the one-on-one training given to him at the bedside or at the examination table side by another physician who's been in practice for a while. That's the only way we're really going to get to learn to do that very well because a concentrated effort has never been put there.

Our roles vary. We were just trained, again, like you were in your specialties. We were trained to take care of medical problems. We were trained to identify a problem and prescribe the diagnostic treatment. If one wasn't readily available to us, then prescribe a treatment of care to try to educate the patient of the things they shouldn't do to not get this problem back or to take care of it long term. We tried to talk to the patients about chronic health care problems. We were not taught to precertify all our admissions. We were not taught to interact with utilization review protocols. We were not taught to get second opinions on every type of surgery imaginable. We were not taught to get a permission to do chest x-rays or to even second think doing a blood count or a strep screen on a throat. Or should you have a mole removed because it is or is not cosmetic? Is it precancerous? Try to certify or justify that. That wasn't in our general milieu of education, but now we're asked to make those decisions.

We're asked to do far more in our office than we have the ability to provide and we're asked to spend far more time on nonmedical things than we should. And what happens is we develop a resentment to all the systems. We don't want to fill out four different forms for four different HMOs. We would like them to accept your superbill. After all, the government does and if the government does and indemnity insurance does, why shouldn't an HMO? These are the problems that face us.

The second problem that faces us is the HMO patient change. When I first started in HMOs five years ago, most of the patients fit the HMO model of a patient. I don't know if you know what that is. They were a certain age, with a certain degree of illness; they came to the office a certain amount of times, they listened pretty closely, they were fairly intelligent and they were usually healthy and young. What we're seeing now as we slowly change into canceling you for preexisting

illnesses, is that your indemnity policy will cost you $2,000 a day if you go to the hospital. We're seeing older, sicker patients; not quite Medicare, but in their late 40s, 50s, early 60s. Those who are still working opt for HMOs because of pre-existing illnesses. When Northwestern University dropped out of Health Chicago, I inherited about 30 Northwestern University patients. Of those, four already had primary cancers and were undergoing treatment. Two were on long-term antibiotics for bizarre infections and the rest were kind of the run-of-the-mill walking wounded.

I began to think to myself, "How can I possibly take care of them and try to keep myself in budget?" It would take me extra hours just to sit there and try to bone up on the latest treatment for any one small illness. If the patient came in on indemnity, I'd say, "Well, look. This is an unusual infectious disease problem. I'm just going to call my friendly neighborhood infectious disease expert who is schooled in this and let him see you once, prescribe a treatment plan and go for it from that point on." There's an added motive to try to do that. The motive is, first, number one, I don't have to go through the rigmarole of getting everything I want approved. Second, I also can be a little more cost-conscious about tests. It's hard for me to tell specialists not to order the computed tomography (CT) scan or the MRI. Although I have that right, I don't feel on good grounds. If I send a patient to a chest surgeon for a spot on his lung and he suggests a CT scan and an MRI and then a bronchoscopy and an open biopsy, that's all Greek meaning a thorough medical work-up. I don't feel on safe ground saying, "No, we'll just give him a little penicillin. I'll see him in three weeks. We'll do another chest x-ray." The other point is I don't want this guy making a second phone call to a lawyer telling him, "Hey, my doctor is avoiding me. He's not seeing me. He may miss my cancer of the lung and I may die." So, doctors are under those pressures too.

In the area of standards of practice, no standards of practice yet exist that cover all eventualities or all possibilities. Whenever you see a suggestion of a standard of practice, there is always a little sentence underneath that says, "Clinical correlation is always used." So, if I send you for an x-ray and something comes back that says, "Suspicious of clinical correlation advised," you can bet you're going to get another x-ray. If I knew what it was, I wouldn't have had the first x-ray, but I'm sending you for tests to further delineate your illness. If I can't define the illness, you're not going to be happy as a patient. I'm going to be very unhappy as a physician because I'm not going to know what to tell you. Not only that, but I'm not going to know how to treat you. So, the pressure to make final diagnosis is basically placed upon doctors. The encumberment of managed health care often makes that more difficult to do.

It is impossible, I feel, to run a managed health care system where there's such a heterogeneity of medical practitioners and patients. When you join a managed health care system, it requires the patients to be well versed in the HMO's policy, to have some education about health needs, health requirements and healthy habits, and it requires that they also be able to fit into that type of very vigorous, very scrutinized, very utilization-oriented system. Patients who can't, who pop in from now and then, who demand to see an opthamologist at a university to get their contact lenses fitted, do not make it well in a managed health care system. That raises problems with the physician dealing with them because they never feel the physician's doing right. The physician always has the feeling that the patient may be very litigious, even when the patient may not be, and the system gets very shaky. They usually generate at least two phone calls to the medical directors of the IPA complaining about the doctor's lack of attention and then the medical director of the HMO to get a concurrence of that type of description of the doctor. So, if we don't go out and educate our consumers on health care, we are not going to have a good managed health care system or a good social health care system. There's a book called *The Social Impact of Medicine*, (I'm probably misquoting the title of the book). It's written by a person who spent 20 years in Europe and describes the health care systems in England, West Germany, France and the United States as it pertains to the society in which the medical care is delivered. The way she describes the United States is that the United States and the citizens of the United States are basically raised on sort of a common credo. You try to win, you try to evaluate everything to the end. The cavalry always saves you at the last minute and you never stop until you get what you want done.

Now, based on that type of cultural norm, you get a picture of the kind of patients that will storm into a doctor's office and ask for care. They want everything done, they want their answers, and they want to get better. They're not interested in anything in the middle and they're certainly not interested in a doctor saying, "Well, wait a minute. I have to call your HMO to find out if I can

send you to the specialist that I know can do the work because he's not in the plan." They don't want to hear that because their reply to me is, "I pay so much money a month for this health care. You can't tell me I can't go to see who I want to go to see and you can't tell me you're not going to help me pay for this."

MR. HULET: I have a question that I will address to our two physicians. What are your opinions of the changes that might take place if the Resource Base Relative Value Schedule is put into place by Medicare?

DR. FISCHER: I attended a meeting of the American College of Physicians last year, at which time this was brought up. All the internists were very excited and thought it was great and all the surgeons thought it was terrible. I attended a session of the GHAA recently, where this will be placed in effect regardless of who opposes it, possibly as soon as April 1990, but not later than April 1991. There may be some modifications and they're working on that at the present time. I believe, however, it is cost-neutral and it just sort of divides up the money a little bit differently. The assumption may well be that if you give more money to family practitioners and internists, they'll tend to see the patients more on that basis than going to surgery. That remains to be seen.

DR. MUTTERPERL: This is another one of those catch-22s. Being a compulsive subscriber to anything that has to do with medicine and politics, I get a little bulletin called *Medicare Part B News*. It's an interesting piece of information and they mention that the relative value scale may well come in by the middle of the 1990s or so and that it will be a phase-in; 7%, 7%, 14% over three years, similar to the DRGs. They also mention that about the middle of that phase-in, they should have their standards of care down. Once the standards of care are published, you can go and see your doctor and the doctor can bill. They'll basically tell you things like insulin-dependent diabetics should see their doctor every four months and, therefore, Medicare will pay for you to go see him for whatever his fee is every four months. If you go every six months, that's fine; but if you go every month, two or three of the months are on him or on you, not on Medicare.

So, by limiting the exposure, limiting the utilization based on diagnosis and treatment protocols on standards of care, they will, in effect, limit the amount of dollars they're going to give out. If Medicare basically says, "You're going to see the doctor for your illness once every three months" and you go every month, they don't pay for it two of those times. Now, people don't think that's in force, but I have a couple of patients who belong to the United Mine Workers on a retirement benefit. Travelers is the intermediary for their Medicare retirement fund. I see one patient for diabetes every three months. I've billed them. I've seen him three times in three months; once for bronchitis and once for his diabetes and once again just to check on him for his routine. We billed them for three visits, a visit a month. For the third visit, I got a letter back saying, "We already paid you for this diagnosis in February. We will not pay you for the visit in March because it carries the same diagnosis." All that's telling me is that I've got to play multiple diagnosis. But I already know Medicare can come in and audit my chart to see if I actually did what I said I was going to do for the reason I said I did it, so I'm kind of leery about getting a $2,000 fine for what they may construe as Medicare fraud. So, although they may put in the relative value system (RVS) and it may make a windfall, it's not without its quick knife and the knife could be based on the fact that they're not going to let you utilize to the extent you may want to once you start getting paid more.

MR. DAVID WILLIAM DICKSON: One of the items that was mentioned for low-cost, high-volume outpatient procedures was a diagnosis profile. If you have a claimant that exceeds that profile, then you'll kick that claim out for excessive use. That kind of falls in line with something we heard previously in the session, "Underwriting." A gentleman was suggesting a diagnosis profile to do renewal rating on small groups. Does anybody have a diagnosis profile? You get so many claims in and you can predict a norm; you would expect so many more claims in a year. On those small claims, such as chiropractic and other things, I have not seen anything.

MS. ARMOCIDA: The applications that I've seen are relatively crude; for instance, the reference to what Medicare has been doing, where it's basically numbers averaging and looking at them in terms of diagnosis. Some of them were sophisticated approaches and are starting to come into play, but I've not seen it to the extent yet that you're talking about.

MR. HULET: Diagnosis profiles can be used to create health status profiles. I think use of such profiles is a rating technique that is going to come into use more and more as we go along. There are some HMOs that have tried to introduce health status indicators in their rating and I would imagine that we will see more and more of that as the data improves and we get a few more indicators that we can use to measure those types of profiles and their effectiveness.

MR. DICKSON: Just one more comment on that. For many years, our own underwriters have reviewed shock claims as a standard operating practice to try to determine whether it's ongoing for renewal rating purposes, but more and more they're trying to get me to give them some information.

We've had to do the shock claim analysis for a long time. There is $40,000 on a bypass, and what are the expected claims in the coming year for renewal rating purposes? How much can be written off for the coming year? What they're asking for more and more is some analysis by diagnosis. For example, a claim just came through the door. It's only for $500, but the diagnosis is diabetes and this is the first diagnosis of diabetes we've had on this person. What are the expected claims in the coming year for that diagnosis? And that one's probably easier than some of these that come in where it's back manipulation for chiropractic or something else like that. My point is it seems to me, and I heard it before, people are trying to do that. But you get an actuary and a physician in the same room and you're going to come up with 16 different opinions on what they ought to do. I don't see any good way of developing that type of information. I'd be interested in knowing anybody's opinion on that.

MS. ARMOCIDA: Actually, I think that there's potential for that. The Iris System is just being tested with one HMO in Connecticut. The people who back Iris were the original DRG researchers. It has concentrated largely on looking at these patterns in terms of different providers; that these providers cause these consumption patterns and potentially different types of patients done on a diagnosis basis. What you're talking about is an interesting idea, which is to use the system in a predictive mode; that once one of these claims hits this system, I don't see any reason why these kinds of systems couldn't identify the expected trail of claims for this provider. This is what our experience has been. Most of these systems are built off of experience and they clump around the norm in a statistically meaningful manner. I don't see any reason why some of these systems couldn't be applied in a predictive manner once the first meaningful claim hits.

MR. DICKSON: So you're suggesting a system that would look at the provider as well and do it by physician?

MS. ARMOCIDA: Right. This system will do that. When one doctor gets a pneumonia patient, he tends to do the following. Another doctor does something different. The average for all the doctors treating pneumonia is the following. But I don't see any reason why you couldn't start to think about predictive capabilities. They literally have such capabilities, where the statisticians can show you footprint graphs, as they call them.

MR. DICKSON: As any good actuary will tell you, you can look at averages all day long, but if you don't know the variance about that average, you're going to be in big trouble.

MS. ARMOCIDA: I'm one of the non-actuaries. But I would think this system would interest you because of the statistical manipulation that goes on with it.

MR. BURCH: I think your comment about variance is a good one. When I was on the carrier side, I could relate to the problem of trying to predict shock claims, but it seemed to me that there was so much variance in the particular situations that I'm not sure the averages would do that much good.

MS. ARMOCIDA: You'd be surprised on some of these diagnoses. They've run about 200,000. They're expecting to try and run 2,000,000 claims through the system. There are certain diagnoses where there's tremendous variability in the outpatient setting, but there are some where there is marked clumping around the norm.

DR. MUTTERPERL: One of the difficulties is you really don't have a good, again, standard of care, so you don't even know if you're looking at somebody with a cheap claim or if the patient is

actually getting optimum treatment. The physician's only care should be that optimum treatment be given. Second, what is your claims data based on? A written diagnosis or an International Classification of Diseases, 9th Edition (ICD9) code? When they write down diabetes, how specific are they getting?

MS. ARMOCIDA: The system, as I understand it, is using very crude measures. ICD9 is sometimes crossed with CPT4, but do you know what's really interesting? On the high outlier side, you look at some of that and certain things fall out. It's really the minority, but let's say you see an extremely high utilization rate of MRI. Look at some of those providers; they happen to own the MRI facilities, so there's a reason to intervene.

DR. MUTTERPERL: Don't worry about it. Mr. Fortney H. Stark (Pete), U.S. Representative of the 9th District, is taking care of that this year, so it won't help anybody anymore. One of the problems is that the physicians have been very unsophisticated in their coding, so every diabetic looks the same whether or not the diabetic just had three amputations, unless they code the amputations. If it's a medical code, they may not. If the physician's a nonsurgeon, he may not code in amputations. He may just code diabetes. There are 15 codes for cholecystectomy. Which one do you want to look at? If I'm going to do it fast, I'm just going to write down cholecystectomy. Even if I went in and explored the common bile duct and did some more fiddling around and spent four hours, it will all code out the same. That bill would be $5,000.00. Another guy will do a 15-minute cholecystectomy, the world's record is 12, and nothing is left in, skin-to-skin as he says, but you'll see 15 minutes and he's charging much less. You'll sit there and say, "Wait a minute. What's the difference here?" Unless you pull the record, you have no idea what you're paying for, which is a problem. The government solved it for you, like they solve a lot of other problems. They demand that every doctor put a code down by his written diagnosis now. So, all the doctors that I know are going out and buying computer programs to code out their final diagnoses because it's just easier and that's the only way you're going to get paid.

DR. FISCHER: I wanted to make just a couple comments about some of the talks and some of the observations that I've made. Apropos to the discussion now, the encounter data in a capitated system is relatively unsatisfactory. We calculated that we're only getting about 50% of the encounter data because there's no incentive for the physician to send it in. So that would certainly distort the data significantly.

Also, Patti talked about 5% of the doctors generating some of these bundled claims. I would say, from the statistics that I've seen, that a far greater percentage of physicians do not practice good managed health care and I would think that number is much closer to 50% than 5%; the identification based on claims alone. I quite agree that we have seen exactly what she is saying.

The other one single comment I'd like to make is that having worked in the IPA setting, I think that the IPA concept is totally unsatisfactory and is never going to be a satisfactory method of managed health care. The IPA model is an accommodation for the private physician and, to a certain extent, the patient, and I think it will slowly disappear as a functional system.