MEDICARE PAYMENT ADVISORY COMMISSION

PUBLIC MEETING

Ronald Reagan Building
International Trade Center
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COMMISSIONERS PRESENT:

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AGENDA ITEM: **PAGE**

P R O C E E D I N G S

MS. RAY: Good morning. As you recall, at the September meeting Joan and I presented a workplan on how we were planning to examine disease management, the use of disease management in the fee-for-service traditional Medicare program. During our discussion you raised some questions and issues that we will have to consider as we proceed with this analysis, including questions regarding typology, how do you measure, how do you evaluate effectiveness, how do you target different population group.

We thought as a next step that we would present a panel of experts and they would give you--talk about disease management from different perspectives. So I'm going to be very brief in my introduction. Their bios are in your mailing family materials. Our first two speakers are researchers. Glen Mays is going to open the discussion. Glen is a senior health researcher from the Center for Studying Health Systems Change. Following Glen will be Dave Knutson. Dave is a director of health systems study from the Park Nicollet Institute for Research and Education. Then Jeffrey Simms will follow. He has actually implemented a disease management program. He's with North Carolina Medicaid and he's the assistant director from the division of medical assistance. Gentlemen.

MR. HACKBARTH: Welcome to you all. We appreciate your willingness to share your expertise on this very timely topic. Glen?

MR. MAYS: Thank you very much. Employers across the country are now into their fourth consecutive year of double-digit annual increases in health insurance premiums, with 2003 being the largest increase since 1990. In response, a number of employers and health plans are now embracing disease management and related care coordination strategies as a way to potentially rein in those costs, and really in response to facing few other alternatives for cost containment and quality improvement.

Today I'm going to share with you some findings from the most recent round of the community tracking study conducted by the Center for Studying Health System Change to offer insight into the experiences of health plans and employers across the country are having with disease management in health care and what lessons might be drawn for Medicare. And I do want to

acknowledge my co-authors Ashley Short and Jessica Mittler in this research.

I want to just by way of background just briefly give you an overview of the community tracking study. This is a study that is designed around 12 randomly selected communities across the country that are studied on a rolling basis every two years. So we've been tracking these markets longitudinally since 1996. These markets were selected randomly so that they are nationally representative of health care markets across the country, and in particular markets with a population of at least 100,000.

In each round of the study we conduct interviews with a wide range of health care stakeholders, 70 to 100 interviews in each of those markets, speaking with representatives from health plant, employers, providers at the physician and hospital levels as well as policymakers to get a broad and balanced view of trends in health care and health care delivery. That allows us to triangulate results and to develop a balanced perspective of how these markets are evolving over time. The findings I'll be talking about today relate specifically to the most recent round of research, that's the round four site visits that were conducted between September 2002 and May 2003.

The community tracking study sites, as you can see here on this map, a broad geographic representation here. Again, these are all markets with at least 100,000 population.

It's clear from this round of the research that employer and insurer interest in disease management has clearly grown substantially over the past two years in response to a number of factors. Clearly, as we have seen over the past three to four years, other cost containment tools that health plans have attempted to use, and those tools specifically associated with managed care, have largely faded from use in many markets in response to consumer and provider dissatisfaction with some of the more stringent approaches to health care management. In particular, strategies such as prior authorization and primary care gatekeeping have been de-emphasized by health plans in many markets in response to these dynamics.

At the same time, as we mentioned earlier, health plans and employers have continued to confront double-digit increases in health care costs and in health insurance premiums so there's still a need to find other approaches for managing costs that are perhaps more acceptable to consumers and providers. Along with that there's been a growing awareness of gaps in health care quality and the fact that we have an enormous gap really in many areas in terms of the evidence that we know about health care strategies that can work to improve health and the types of health care that patients actually receive in real world health care settings.

So a growing concern among health plans and employers in finding strategies for closing that gape between evidence and practice. As a result there's a lot of optimism about the role that disease management and related care coordination strategies can play in closing that gap. In addition, we found a real desire among employers to find strategies that move beyond simply reducing benefits or increasing cost sharing on consumers as a

way to rein in health care costs. That's really why, a major reason for the growing enthusiasm in disease management.

Health plans and employers are pursuing two related approaches in this area. One is the traditional disease management concept which encompasses programs that target defined populations of members that have specific health care conditions and applying standardized protocols, treatment protocols and interventions to address those conditions. So it's really a population-based strategy for affecting health care delivery.

A second related strategy, often termed case management, intensive case management or high-cost case management is really a much more customized approach. It targets individual patients that are deemed to be at high risk of health care complications and high health care costs. Often these patients have multiple conditions they're facing, so it's not a disease-specific approach but it's really highly customized to the individual patient needs. Therefore, the interventions that are used to coordinate care are highly customized and often go beyond medical care services to include social supports.

Increasing we're finding that health plans and employers are viewing these two strategies as really being interrelated efforts for reducing cost and improving quality of health care. So we're seeing in many cases a blurring of the distinction between these two approached in private health insurance markets.

Who offers these kind of programs and how are they purchased? Clearly, most employers purchase disease management programs from their health insurers still in the markets that we studied. Health plans in turn, some health plans develop their disease management programs internally while others contract with specialty disease management vendors to offer these programs.

More recently we found in a few markets some of the larger self-funded employers have begun to contract directly with the specialty disease management vendors for these programs rather than purchasing them through their health plans. One rationale for that that some employers cite is the ability to cover all of their employees with a single set of disease management programs, even though they may offer multiple health plan choices. So that all employees can be covered on a single set of programs, they can realize perhaps by some economies of scale in providing those disease management programs while still offering their employees a choice of different health plans and benefit designs.

Also in some markets medical groups and hospitals are actively involved in developing and offering disease management programs. We've seen that particularly to be the case in markets where you still see a lot of risk contracting between health plans and providers. So when providers are actually bearing the financial risk for health care services you see substantial involvement of hospitals and medical groups in directly developing and offering these disease management programs. And necessarily in those markets, health plans find it--are less engaged directly in delivering these disease management interventions because it's really that responsibility has been delegated down to the provider level.

Over the past two years we have seen evidence in most of the

12 markets that we study of expansions in disease management offerings by both insurers and employers. Employers in most of these markets are pressing health plans to offer more programs that more targeted to the specific health care needs in their workforces. Historically we've seen a lot of activity among health plans in offering disease management interventions in some of the most prevalent disease areas such as diabetes and asthma and chronic health--congestive heart failure. Many employers have begun pressing health plans to offer an expanded array of interventions that are perceived to more directly address the health care needs in their employee populations.

Employers, for example, that have predominantly younger workforces are often dissatisfied with the limited range of programs that may be offered by the health plan because they don't perceive their workforce as having intense needs in the chronic disease areas. They'd like to see more programs targeted to health conditions affecting younger populations. So in response to that we have seen health plans over the past two years undertaking a variety of efforts to add new programs. So moving beyond those traditional areas in diabetes and asthma to look at things like low back pain, osteoarthritis conditions, orthopedic injuries, obesity. So a broader range of health conditions that would be of interest to employers.

A second important trend that we've seen health plans adopt is beginning to migrate their disease management programs from the HMO product, which has historically been where many of these disease programs have been developed and rolled out, into other types of health insurance products. Particularly, finding ways to adapt these programs to fit PPO products, given the fact that in many markets we have seen a rapid growth in enrollment in the PPO products and really a stagnation or even a declining enrollment in HMO products. So there's been, in several markets, a lot of work by health plans to adapt these programs for the PPO products and for less restrictive managed care products.

Additionally, health plans have been investing intensely in activities to boost participation in these programs by members. So they're looking at ways to engage consumers, to provide outreach to consumers, educate them about the programs, and encourage their participation. This has really been in response to problems that health plans have historically had with low rates of participation in many of these programs. Along with that, plans in a number of the markets have been making considerable investments in information systems designed to support their disease management programs. So systems that would both provide information to consumers about their disease states and about self-care strategies and also systems that can provide information to providers to help empower providers to support member participation in these programs.

In Seattle, for example, several large health plans were developing systems that would be able to provide information to providers about the specific patients in their panel that would be eligible for specific disease management and case management interventions so that a provider could begin to play a role in encouraging participation in the programs.

Another major finding from the last two years of experience in the private health insurance markets that we're studying is that health plans and employers have begun a new focus on intensive case management over the past two years. So as I mentioned previously, this involves targeting smaller subgroups of members that are really perceived to be high risk or high cost members. So it's not necessarily a disease-specific strategy but across the patient population to identify the subgroups that are at higher risk of health care complications and health care costs. A number of plans are now experimenting with predictive modeling applications as methodologies for identifying those high risk cases prospectively. So the interest is in identifying patients before they have incurred catastrophic health care costs and help to coordinate their care so that some of those costs can be avoided.

The focus of these intensive case management programs really varies across plans and across markets. Some of them are focused pretty tightly on reducing hospitalizations among at-risk populations. Others look at lowering total health care costs, so their predictive models are really developed at trying to project total cost for their members and targeting those high cost cases.

Then other plans have developed these case management programs around addressing care management for non-compliant patients. Often those approaches really rely heavily on providers for identifying patients that are having trouble complying with recommended treatment regimens, and then enrolling those patients into the program.

Interestingly, in a number of cases we found that the reason in particular for large self-insured employers being interested in intensive case management programs were requirements from stop-loss insurers that employers who are--as a condition of obtaining stop-loss insurance employers need to have these case management programs in place for managing high cost cases. In some cases it's a requirement. In other cases employers can obtain lower premiums for their stop-loss coverage if they have these programs in place.

Health plans and employers are taking a variety of different strategies for integrating the intensive case management programs along with other disease management programs. In some cases, in a number of markets health plans are actually introducing these case management programs alongside their traditional disease management programs. Here the plans really view the case management programs as filling in the gaps that are not addressed by disease-specific disease management programs.

Other plans have actually adopted intensive case management programs as a wholesale replacement for their disease management programs. In one case in Seattle, a large insurer that had been investing pretty heavily in disease management over the past four years has really made an about-face over the past two years and discontinued all but one of its disease management programs and replaced that with intensive case management. The rationale there was that, the health plan reported that the disease management programs were spending a lot of resources identifying the full population of patients with disease but only a very

small percentage of those patients with a particular disease such as diabetes were actually not managing their disease effectively and really needed the intense support. So by moving to an intensive case management approach the plan thought it would be a more efficient use of resources by targeting the case management resources only on the very high-risk and high-cost patients.

Additionally, a few plans actually are offering employers a choice of different types or levels of management that include both disease management and intensive case management approaches, often with the different programs targeted at different levels of risk for patients. So they would really profile patients based on their level of risk and then assign them--map them into disease management or intensive case management programs depending on their health care needs and level of risk and conditions identified.

I next wanted to turn to issues around perceptions of program effectiveness, which is clearly an area of enormous interest for payers and health plans in this arena. In general, the hard evidence of effectiveness in return on investment is fairly limited for disease management programs and case management programs. We have good evidence, solid evidence for an array of specific programs where there's been strong controlled clinical studies that look at these issues. But where the gap exists I think is in how these programs are actually operating in practice, and the cost-effectiveness and return on investment in these programs once they are implemented in different health care settings.

Certainly, we've seen--there's a lot of variation in how these programs are rolled out by individual employers and health plans in different markets. As a consequence we found that perceptions of the effectiveness of these programs varied pretty widely, both across markets as well as within markets. In fact most of the health plans and employers that we spoke with in this round of interviews actually indicated they did not have enough experience and/or not enough enrollment in these programs to be able to yet assess the effects on cost or quality at this stage.

Just by way of example, to give you a sense of the variation in perspectives of program effectiveness, in Seattle one case that I mentioned already, and insurer discontinued virtually all of its disease management programs over the past two years because of the high cost of administering those programs, fairly low rates of participation, and also the perception that the members who were participating were not--a very small fraction were actually benefitting by the program because a very small fraction were actually not complying with the disease management protocols and recommended guidelines already. So that insurer actually discontinued four of its five disease management programs and moved to an intensive case management approach. The one program it retained was a program that focused on high risk pregnancy and that was the one where it did have some fairly solid evidence of return on investment over a fairly short period of time.

In contrast, we found several insurers who did report significant findings in terms of the effectiveness of their

programs. A large insurer in Boston, for example, reported that a program it had in place for congestive heart failure resulted in a 33 percent reduction in hospital admissions for the patients participating in that program and a 5 percent drop in total cost for patients participating in that program. Similarly, a large employer in New Jersey that had started an intensive case management program for high-cost conditions in its workforce reported a $2 return on its investment for every $1 spent on that case management program.

But the fact is that many other insurers and employers in the markets that we studied indicated they did not have clear evidence, particularly on the issue of cost savings or return on investment. A number of health plans were able to report some significant findings with respect to improved adherence to recommended protocols and guidelines, improved screening, improved patient compliance with self-management strategies. But many of them indicated that they were not able yet to assess actual economic outcomes and cost savings from these programs.

A few of the challenges to program effectiveness that health plans and employers noted. Clearly, limited member awareness and participation is a major challenge. Along with that, challenge of engaging providers in disease management and enlisting their support in getting patients involved in the programs. Health plans, the commercial health plans face a large problem with membership turnover, the fact that their members frequently switch health plans and they often don't have many members long enough in their programs to realize the benefits from their programs, and particularly to realize a return on investment.

Then also difficulties that health plans face in measuring and demonstrating their program effects, being able to look long enough into the horizon to measure program effects. And also issues around different perspectives between insurers and employers and what the important outcomes of interest are.

To address some of those challenges we have seen some experimentation with ways to enhance both member and provider engagement in disease management programs as a way to improve the effectiveness. Health plans in several communities, for example, have begun to offer members lower copayments in exchange for participation in disease management programs. We saw that in markets such as Miami and in Syracuse. Several other health plans, as a way to target providers and engage them in the programs have started to offer exemptions from prior authorization requirements for providers that are participating in disease management programs and that are compliant with the practice guidelines associated with those programs.

Then additionally, health plans in Boston and Orange County, for example, have started to experiment with using financial incentives targeted to providers, again, tied to physician compliance with disease management protocols. So these are some of the strategies that are beginning to be tested as a way to improve program effectiveness.

Finally, just in conclusion I wanted to summarize our findings here. I think it's fairly clear in looking across markets and the experience of private health plans and employers

that clearly plans and employers are investing more in disease management despite relatively limited evidence of effectiveness of these programs. Plans are increasing the number of programs they are offering. They're also increasing--they're offering these programs in a broader array of health insurance products, and particularly focusing in on ways to offer these programs in PPO products which have really become the predominant model of health insurance delivery in most markets.

At the same time, employers are pushing for programs that are more tailored to the health care needs of their workforces, and also pushing for more evidence about program effectiveness. I think the bottom line here is that while there is a lot of enthusiasm for these programs and a lot of experimentation, a lot of innovation in private health insurance markets, there's still strong demand for more evidence of the effectiveness of these programs.

I'll stop there.

MR. HACKBARTH: What I'd suggest we do, as opposed to having questions for each presenter, why don't we get all of the presentations out on the table and then have a broader conversation. David?

MR. KNUTSON: Thank you very much. Disease management is a growing industry, as we just heard. The phenomenon is a child of many parents, many trends in health care, and is now seen as a way to improve quality and efficiency of care, primarily for individuals with a dominant single chronic disease. Disease management and chronic illness management are nearly synonymous when one considers the problems that are addressed and the approaches that are encompassed.

So what are these characteristics of a disease management program? There are so many resources we could use to identify these, the Disease Management Association of America, Ed Wagner's group and others, a project that John Christianson at the University of Minnesota and I conducted in the mid-'90s with a national expert panel reached these conclusions, that a chronic illness care program--and I would submit a disease management program--includes the following key characteristics. Clinical and referral guidelines, a team approach with care coordination. This requires a restructuring of care and all the relationships among members of the team, nurses and physicians particularly. This came through loud and clear, no program--it has to be an organizational level approach. It can't be based on a primary care office visit, for example. None of these can be based on office visits. Therefore, even if it's a provider-implemented program it can't be embedded in a visit. Patient self-management programs are needed, patient registries and reminders, an ongoing performance measurement and feedback.

When one looks at these they distill down to some key features. One is, of course, the guidelines, and the fact that guidelines have really become much more accepted. You're less likely to hear physicians say, this is cookbook medicine. The idea of evidence-based medicine is now commonplace.

Then we look at the clinical IT. This is happening; the Holy Grail. It's been a long time but it seems to be happening

where the kind of IT capacity is becoming available so that one can do the things you need to do to track, monitor, and respond to changes for people with chronic illnesses and for anyone in a disease management program. We also need to consider the patient and we have to find new ways to engage the patient, not only with education but skills for self-management.

Then finally, the restructuring. This is the most difficult part of the whole thing, and provider organizations have not been good at change management. But I submit that the restructuring will occur when a number of other ingredients are in place.

I'm going to skip ahead. We heard about the first stage of disease management, the independent, direct-to-patient disease management programs that are prominent today. They're less difficult to administer because you can avoid dealing with the network. They're a useful start but they probably are of limited potential. I submit that increased benefit may be obtained through a more difficult integration of disease management within the provider setting. This is certainly something that managed care organizations are attempting to do, and insurers, but often it's been a more direct route to go directly to the employee/beneficiary/patient through a vendor.

But I also would submit that the optimal design for a disease management program would more explicitly focus on the provider-patient relationship, and I'll talk about that later.

But before that, what do we know about the effectiveness of disease management? There are a few, not many, meta-analyses and critical reviews of the literature available. I again look back to the team I'm on led by John Christianson. We reviewed 399 articles evaluating managed care organization sponsored programs. The vast majority of those evaluations were poor quality. Either the patient characteristics were poorly specified, the intervention was poorly specified, or the outcome poorly specified. We ended up with only about 35 to 50, based on how rigorous we wanted to be, articles that seemed to be good enough so we could understand something about where they might generalize.

But through all that we found evidence that disease management programs do improve care. But we also found evidence that they had poorly diffused into routine care. In other words, everyone had a pilot and everyone focused on one disease, and everyone had a true believer site, artificial funding, work-around systems, and they were doing something, but very little had happened to diffuse it into usual care.

Another more recent meta-analysis published in BMJ by Weingarten and group conducted a meta-analysis of 102 articles meeting criteria. His keyword search started out with 16,000-plus articles, so one of his conclusions was that the field is littered with poor quality studies. But what he did then is break down these different interventions into the types of strategies the program used. They were either strategies directed at changing provider behavior or at changing patient behavior and informing patients. So programs used either patient education, feedback, and reminders and/or they used provider education, feedback, and reminders. The one additional strategy

that they found was patient financial incentives for participation.

The programs that use any of these strategies produce modest to moderate but significant statistical improvement. But as Weingarten says in his conclusion, little is really known about the relative effectiveness and cost, therefore cost effectiveness associated with these different strategies.

So let's go back to the providers. What is the extent of diffusion of disease management practices in the U.S. physician organization let's say? I would like to first turn to a recent article in JAMA published by Larry Casalino at the University of Chicago and his former group at Berkeley, Steve Schartel and others based on a national survey of all the physician organizations in the country with 20 or more physicians. I won't go into the details of the methods. I wanted to point out that the primary focus of the study was to try to identify their use of what he calls organized care management processes. Now if you look at these, this list on the slide is the list of so-called CMPs, case management, self-management registries and reminders, guidelines and physician feedback; the usual suspects. They asked whether these processes were used for the following diseases; also the usual suspects, diabetes, asthma, CHF and depression.

The findings and the number of--he had a 70 percent response rate, 1,104 groups responded. The findings were that 15 percent of these groups use no CMPs, 18 percent use some for all four diseases, 49 percent use some CMPs for at least one disease--that's diabetes--and 9 percent use all CMPs for all four diseases.

Looking at diabetes, which was the disease for which there was the most effort, case management 43 percent, self-management programs, 57 percent. Now for those of you who are really paying attention you'll know that this does not jive with the previous slide. It is what was reported in JAMA, and I think the issue there is that they asked about self-management which is patient education generically. They didn't ask it about a specific disease, those four types, so it's very likely that most groups are going to say they have patient education programs. I'm surprised that it's only 57 percent, but that's the disconnect between the figures on the previous slide. Registries 40 percent, guidelines and reminders 38 percent, physician feedback 48 percent.

He also looked at factors related to CMP use. First is the availability of external quality incentives. He asked the medical groups whether they in fact were paid, or whether they were experiencing any of these incentives, some were financial, some were not financial like public reporting. 74 percent said they had at least one of seven types of external incentives, 17 percent four or more, and 33 percent no incentives. Again, these are the numbers reported. I went back to find the nuance that would indicate what the denominator was but I couldn't find it at this moment, but these are the numbers reported.

With regard to clinical IT capacity, they asked a series of questions that tried to probe the stage of development of the use

of clinical IT for the management of these four diseases. Fifty percent reported that they had none of these six clinical IT functions available and 76 percent reported two or fewer. In the study the analysis showed that both external quality incentives and clinical IT capacity independently were significantly associated with an increased use of CMPs. So this is providing some high level, but some evidence that some of these tools and pressures or incentives seem to play a part. There could be many other factors that do, but at least this is some indication that there's an association here.

If we look particularly at providers and how they are reacting to the need to integrate disease management programs in their practice they would identify a number of barriers. The first is financial constraints, of course. The second is provider time burden. Again as I mentioned, it cannot be visit-based so it really does need to be a separate program. Many of them lack clinical IT capacity. In some cases they have the capacity but they haven't developed the disease management application yet.

On another study that we've just started where I'm involved in an organizational economic evaluation of the implementation of a diabetes program in 11 medical groups in the country it is very interesting that some have implemented EMRs but have not yet developed the registry capacity. In other words, it's been a little bit of an afterthought. For others it's been, of course, the first thing we want to do is do this. But what I've observed in many groups is that went in the EMR is in place it's an explosion of opportunity perceived by even the rank and rile physicians, and it's an amazing thing to behold. So I've come to the conclusion that clinical IT by itself will be a milestone and a breakthrough in allowing for what we call disease management to be successfully implemented in medical groups.

I do think also thought that the incentives need to support this. In another project that I've just become involved with funded by HRQ, we're looking at how incentives are translated to and within provider groups in Minnesota and Colorado. We are trying to understand the new pay for performance phenomenon and try to understand it from the provider's prospective. Some of these demonstrations are also good starts, just like targeted disease management, a good start but possibly self-limited. Targeted pay for performance is a good start, probably self-limited because they have some Pavlovian idea of a response to incentives and don't typically--haven't tried to understand the incentives in the environment of a medical group. But we're going to try to address some of these and we're going to build on the work of Casalino, Schartel, Wagner, and others.

The wild card in all this though, I think, is the poor mechanism for patient involvement. I think that's something where we really don't yet know how do that well. I'll explain what I mean in a second. I've got very limited time so I'll move much faster.

Judy Hibbard, who some of you know as--I guess you could call her a guru on the consumer behavior, and others, have made a number of observations recently. Hers in a very good overview

article that was just published. She identifies three types of roles for patients, consumer/beneficiaries. One, of course, is the informed choice role we've all been pushing. She says, as I and others have found in our own research, that consumers still show little use of the kind of information we're providing in report cards and seem not to be switching as often as we think they should in a rational consumer-driven market. It's happening but not to the extent that anyone has hoped.

She also talks about the evaluated role where the consumer's perspective, primarily through satisfaction surveys, are included as a quality measure. But she talks more now about the co-producer role; the patient as a collaborator with the physician in this case, and the values of that. Underneath all that would be the concept you're familiar with self-management, shared decisionmaking, and collaborative care. I could go into details but maybe during the Q&A.

I think one of the observations though that they all make and that we've made is that the provider-patient relationship remains a dominant force. Not matter what we try to do produce a consumer choice market we can't deny this force. Even when you talk to someone like David Lansky at FAACT and they produce physician-specific quality information for patients, the patients instead of saying, this bothers me, I'm going to switch doctors. They bring it to their physician and say, maybe I can work with my physician to improve his care or her care. That's a different world than was contemplated I think.

We all know that patients more successfully participate in disease management programs when physicians recommend or refer. That's a common experience. If their physician says, I think you should do this, they will go to it, they'll stick with it much better. As you heard, some of the independent stand-alone programs aren't getting good, what they call compliance. I think it's the concept of compliance that is fundamentally the problem.

One of the things we haven't done is try to understand this provider-patient relationship from a lot of perspectives. I think providers will be able to administer disease management when EMR is implemented. I think maybe some small providers need help but I think that by itself will do a lot. Programs must be operated at a physician organization level. They can't be physician based. We know that, but a lot of medical groups are aware of that. New incentives must be developed but they have to get beyond just targeted pay for performance. Therefore we need really a broad conceptual model of the economics of the whole thing. In that model I think needs to be focus on the patient-doctor relationship.

I don't think we have enough explicit attention, as we try to push choice, in the role of agency. I think that we assume the primary care physician is a trusted agent for the patient, but we don't know, especially when consumers are paying more and there's more cost-sharing for choice in treatment, how the patient's perspective is being enlisted in the decisionmaking process. We know the primary care physicians aren't trained well to do this; some of the good ones do. But I think if we build the incentives, build the information around optimizing on that

relationship then I think we have a better chance of producing cost-effective care in general, let alone disease management.

Thanks.

DR. REISCHAUER: Thank you. Jeff?

MR. SIMMS: Good morning and thanks for the opportunity to tell you about North Carolina's experience with our Medicaid program with disease management, but also with our primary care case management program.

We have a program that's called Community Care of North Carolina. Over the last couple years its name has changed a couple of time but it's referred to as ACCESS II and III. But it's built upon a program that's a statewide primary care case management program called Carolina Access where we have more than 75 percent of the Medicaid population in the state linked with a primary care provider, so the basic fundamental or foundational step is there where we've been able to link the Medicaid patients with the primary care provider. While building upon that foundation we implemented or we began implementing in 1998 the Community Care of North Carolina program which joins together all of the community providers, all the stakeholders at the local level, which are the hospitals, the health departments, the departments of social services, along with the providers because we realize that it's a multifaceted approach this needed to really serve the Medicaid population across the state. It creates community networks that assume responsibility for managing recipient care.

The program focuses on improved quality, utilization and cost-effectiveness. Now ideally, when we started the program some five years ago we really wanted to have the opportunity to focus in on quality improvement initiatives, but that was also about the time the states began seeing major problems in their budget deficits so we began having to quickly shift and figure out ways--because we all agree that quality improvement initiatives will result in cost-effective care, but it's not going to give you an immediate cost effectiveness that we were needing and that the legislature was requiring of us during that time. So improving quality, utilization, and cost effectiveness.

So what we began doing was building upon the Carolina Access program which had all the contracts with primary care providers across the state, and we began developing networks with 2,000 or more--currently we have 13 networks with 2,000 or more physicians participating and more than 417,000 enrollees enrolled in the Community Care of North Carolina program.

As you can see, this is a map of the state which gives you the different 13 sites. It's probably difficult to see on the black-and-white printout but we're covering the state. We've got urban versus rural areas. We're really trying to get the providers to network together and the communities to network together as opposed to setting up new sites. We really want to begin just building and expanding upon what we currently have in place across the state now.

The Community Care networks are set up as nonprofit organizations, or some of them, the public providers end up serving as the administrative entity for the Community Care

networks. In a number of the sites the federally qualified community health center is the administrative entity. It's comprised of the safety net providers, of course, those who have traditionally continued to serve the Medicaid population. They have to establish steering committees, medical management committees. They received $2.50 per member per month care management fee. It's important to understand, like I said earlier, this is still based upon the fee-for-service reimbursement. So they still receive their regular Medicaid reimbursement on a fee-for-service basis, but on top of that they receive an additional $2.50 per member per month. Then with that money they're able to hire care managers and medical management staff to do the care coordination and care management for the patient population.

The networks assume responsibility for the Medicaid patients. They really come in and as the providers have their patients linked with them--we systematically link the patients with the provider and then that provider and the network becomes responsible for the services provided to the patient population that's linked with them. We identify the costly patients and the costly services, or we allow the networks to do that and we want them to figure out ways to do that intensive care management that my colleagues were talking about earlier. They develop and implement plans to manage utilization and costs, and they create the systems to improve the care.

Some of the key program areas in managing clinical care for Community Care of North Carolina is that you've got to implement the quality improvement strategies or the best practice processes. Disease management happens to be a very integral part of our program in North Carolina. We're managing the high risk patients. We're managing the high cost services, and we're building accountability through monitoring and reporting.

One of the things that must happen and that we have continued to have is having strong provider support. But in having the strong provider support and buy-in, you've got to provide them usable material in a timely manner where they can know what's happening. A lot of times just peer pressure alone ends up resulting in the providers wanting to change their behavior. But you've got to be able to provide them the information as quickly as possible, and that has continued to be a challenge for the North Carolina Medicaid program. But most Medicaid programs across the country face that challenge of having the information system to be able to give that information in a timely manner. Most of them don't have the information systems built to provide that sort of information so they're having to go back and change it be building data warehouses and those sorts of things.

This is just a schematic of the managing of clinical care. This shows you how we handle it at the state level. We have a clinical directors group which is represented by a medical director from each of our sites coming together on a consistent basis to identify targeted disease management or care management processes. Then at the local level each of the sites have a local medical management committee that implements the

initiatives that were led down to them by the state clinical directors group. But then they can also take on local initiatives. There are some sites that are participating in grants that they've received to do things with child development, developmental services, with ADHD, those sorts of things. Then it goes down to the practice level where each practice usually has a physician champion or a clinical champion who makes sure the practice implements the protocols and the processes as well.

With implementing the best practices, it's evidence-based guidelines, it's improvement specialists. Like I said, there are practice champions. There are the establishment of the improvement processes. And there's benchmarking and goal-setting. Again, that brings in the accountability and the pieces that we've got to have in place where they can see targets that they need to be striving for. So really is getting the providers bought in and sold on the approach.

We have implemented disease management strategies specific to asthma and diabetes. The clinical directors have really worked to set the performance standards. For example, with asthma we're just using the national guidelines for that. Then the local provider buy-in is obtained.

The standardized physician toolkits. There is a need to standardize your processes and the approaches. When we first started out the program in '98 we really wanted to take this as an opportunity for the local communities to not feel that the state was coming down and driving them as to how things should be done. So in our pilot sites we had different strategies being done. But what we realized over the years is that there's got to be a way where we pull in some consistency and some standardized measures and approaches to it. But we still at the state level are allowing the local sites to do it. We give the local--we provide assistance with the local infrastructure and the consistency. But we just provide technical assistance and tell them, ask them how you can get it done at your local level. I think that has gotten us a lot of support from the local communities. And then the practice level quality improvement system processes.

The accountability is there, again as I was stating. The chart audits, the practice profiles, the care management reports which identify the high risk, high cost patients, the PAL which is our pharmacy advantage list scorecard, and the progress toward the goals and the benchmarks. We have been able to really provide some data that allows the providers to become better advocates for you and really identifying some of the patients that they need to understand may be frequent fliers, and they work very closely with those patients. Those are the sorts of information and material that we provide to them.

Again, some of the programs; asthma, diabetes. We've also had to do some things with targeted emergency department management, pharmacy, and therapies. The pharmacy is one that we had to being tapping into because of the immediate cost savings that we can see result from the initiatives that we put in place, because the others are not going to give us the immediate cost savings or give us the greatest bang for our buck. So we have

the opportunity with the infrastructure that we have in place to look at things related to pharmacy and there's some information later in the presentation regarding that.

Our asthma initiative, we have pretty much, like I said, implemented the asthma guidelines for the national benchmarks and guidelines. You can see that some of the process measures which include the number of asthmatics with documented staging in the charts, the number of staged asthmatics with inhaled corticosteroids, the number of staged who have an asthma action plan. All those sorts of things based upon the chart audits and the process measures that we're doing, we're seeing improvements in those areas and we're hoping to continue to see that.

But as we add on more practices--and now we're moving beyond the practices that were excited about coming onto the program and we're now beginning to expand and having to bring in providers who were not necessarily the champions but what we're saying to them is, this is the way we want to see Medicaid provided across the state of North Carolina so we really need you to come on board. So as we're seeing that, we're having to change a lot of behavior with some of our providers.

As you can see, this is some outdated data here but we're trying to get the more recent data. But you can see just by the case management and care management that we're doing with asthma, the episode cost in comparison to those patients under the age of 18 who are not linked with ACCESS II or III provider is a lot less.

Our diabetes initiative, again, these are the chart audits where you can look at the different sorts of process measures in relation to diabetes. We're seeing improvements in that area as well.

ED utilization, the same thing. For patients who are not linked with a primary care provider who is in ACCESS II and III we're seeing their ED rates are higher than those providers who are with an ACCESS II or III network. Most of the Medicaid programs across the country have really felt that our hands have been tied in a number of areas in relation to emergency room cost containment because of the changes with IMTAL and prudent layperson, but we're trying to work as best we can with some of the care management and case management with these patient populations. We identify the frequent fliers, we do the follow-up calls with them. We have letters that go out to them. We try to do as much education as possible with them to contain that cost.

Then as I was stating earlier, we felt that we needed to pull in some things in relation to pharmacy, because we knew that we could see an immediate cost savings with that. So that's why we began doing things like our prescription advantage list, the nursing home polypharmacy project, and the ambulatory polypharmacy project as well. If you'll notice with this, in most primary care case management programs across the country the nursing home population is not included in that sort of a system, and the same thing in North Carolina. But we have the infrastructure in place that allowed us to build upon it and look at populations who would not traditionally be included in the

PCCM models.

The PAL pharmacy--we've developed a pharmacy committee through the clinical directors, the statewide clinical directors committee. The pharmacy committee defines the drug classes and unit doses. Medicaid calculates the relative drug cost and the ranking. We then inform the Community Care of North Carolina physicians and then we measure the changes in prescribing patterns.

This is just an example of what is actually sent out to the providers. It's important to understand, this is a voluntary program. It's not something that the state has mandated. The providers are taking this on as their initiative. We were required by--we went into our budget session two years ago and immediately began telling them about the things we were doing in Community Care of North Carolina and they immediately cut our budget by $29 million and we had to come up with some ways to--strategies to make sure that we would see that materialize, and the physicians felt the need to begin dealing with pharmacy. So they began voluntarily expanding the PAL list and they have continued to do that statewide as well.

The preliminary findings show that we are seeing somewhere, about 22 percent lower expenditures compared to the pre-rollout; post-rollout as compared to the pre-rollout. So that actual savings for that period of time was about $640,000. But we're seeing it continue to grow.

We are now in the process beginning November 1 we're taking it statewide. Again we're asking the providers to voluntarily participate in it. We're working with the local medical societies, we're working with specialty societies as well and telling them, this is the only way that we can really begin working together and really creating a way to save dollars for the Medicaid program. The providers are excited and working with us to get it done. The hospital association is helping us as well, because this is expanding beyond just the primary care providers. But again, one of the benefits to Community Care of North Carolina is it has established the infrastructure for us to build upon it to take on other initiatives.

The nursing home polypharmacy initiative, we've got it in place where we've got pharmacists and physician teams working together. They review the drug profiles, the medical records of Medicaid patients in nursing homes. They determine if there's a drug therapy problem, recommend a change and perform follow-up to determine if the change was made.

The screening criteria is that the nursing home residents wither greater than 18 drugs used in a 90-day period--and the numbers show that we had about 9,208 residents who met this criteria. Our database, the Medicaid database is used to flag the charts according to the following criteria: inappropriate drugs for the elderly, the Beers drugs, the drugs used beyond usual time limit, the warnings and precautions. We still tag it or attach it to the PAL list. And also the potential therapeutic duplication.

Preliminary findings, we've had the 9,208 patients reviewed. As you can see, the recommendations made on 8,559, unnecessary

therapies 19 percent, more cost effective drug 56 percent, wrong dose 7 percent, potential adverse reaction 9 percent, needs additional therapy 3 percent, other 6 percent. As you can see, the ones that we implemented, about 74 percent.

Based upon these findings, the teams are cutting cost. This is an opportunity again. Community Care of North Carolina has given us the opportunity to do some of these more intensive care management things, and specifically with the nursing home polypharmacy. As you can see, the evaluation is being conducted by the UNC School of Pharmacy.

Other initiatives that are under development is the continued statewide expansion, the dually eligible--expanding it to dually eligible population, and figuring out some ways to really work with that population; most of the time some of our most costly patients in the Medicaid program. But again, it's an issue of where some of the federal regs prevent you from being able to mandatorily link them with providers and to deal with them in our environment, but we're figuring out ways to do it.

We're also realizing, like my colleagues were stating earlier, we've gotten the providers who have been the volunteers and the ones who want to do this and now we've got to figure out how do we sustain this down the road, so incentive programs that got to be put in place. Our secretary for the department of health and human services is very committed to looking at health disparities, so Community Care of North Carolina gives us the opportunity and the infrastructure to look at things like disparities.

Improved collaboration with public providers, which is where--we're in the process of revamping our mental health system and that's another provider and stakeholder that we're having to tap into. Looking at in-home care and targeted disease management, continuing to do that as much as possible and building upon it. The infrastructure is there for us to be able to build upon that.

The lessons that we've learned? The top-down approach where we come from the state level and say, it's got to be done this way, doesn't work in North Carolina, and the providers will fight the system. So we decided, let's come together and figure out how we can make it work. I would say that we've been successful with that in North Carolina. We've also had a very supportive legislature in regards to provider reimbursement as well. They have been very supportive of the Medicaid program with our reimbursement rates for our primary care providers, so that has helped us as well.

The community ownership and working with the local communities, that just reinforces the concept that we can't do this alone. We must partner together. The incentives must be aligned. In North Carolina, the major incentive and the push for getting Community Care of North Carolina up and running and the disease management strategies was that the providers in North Carolina have not been strong supporters for the MCO model for the Medicaid population. We have a very limited MCO option in North Carolina. It's only in Charlotte and Mecklenburg County, and we only have about 10,000 Medicaid patients who are linked

with an HMO in that community. So the providers have really felt vested and had a vested interest in seeing this sort of model run.

We must develop systems that change behavior, and we must be able to measure the change. Change takes time and reinforcement, and that's what we continue to have to battle with our legislature to let them know. We're trying to do as much as we can to get it implemented and to see the immediate cost savings, but it takes time.

Thank you.

MR. HACKBARTH: Thank you. Ralph?

MR. MULLER: Thank you to the three of you for that very helpful overview. I have two questions that are interrelated. One is that from the point of view of the Medicare program, especially with the elderly part of that, what do we know about how effective disease management is given that, obviously, many years have already passed by before they become Medicare eligible? A number of you pointed out that the evidence on disease management isn't that conclusive yet, but what do we know about the Medicare part of that in terms of effective investment is for Medicare given that perhaps a lot of it should have been done, as you pointed out, in the Medicaid population a lot earlier?

Secondly, you point out that there is a lot of at least preliminary evidence that case management, especially around high cost, high risk cases may be a more cost effective way to go. Can you speak a little bit to the interrelationship of disease management and case management, especially if you think that disease management may be a way of, if it is a good marker for which cases you may want to case manage. I understand that it may not be cost effective to do disease management across a whole population of diabetics, asthmatics, et cetera, but is that a good marker for the cases that may be case managed or are we better off--are there other markers of which cases one may want to case manage if that's where the most cost effective interventions can be? I know those questions may interrelate, but any of you want to take those two on?

MR. MAYS: I'll start with the first question. I think in terms of how effective we think these programs can be for the Medicare population, I think there are clearly some unique opportunities in Medicare for implementing these programs and it may bode well for their effectiveness in the long run. One certainly is the relatively high prevalence of chronic disease which many of these programs target. The other being a relatively stable membership in the Medicare program. So Medicare is not going to confront these problems of membership turnover that's really confounded a lot of the efforts in private health insurance.

Thirdly, you have the ability to take advantage of population data systems as a way to begin to prospectively identify what patients might benefit from disease management and case management. I think there are also potentially some unique challenges that Medicare faces as well, one being the fact that the population often has multiple chronic diseases and may be at

later stages of disease that may be less amenable to intervention and cost savings.

Additionally, the importance of a pharmacy benefit for many of the disease management programs, managing pharmaceutical therapy is an important component of many disease management programs that are out there in the private sector. The fact that not having that benefit in place in Medicare and not being able to take advantage of pharmacy claims data in the process of managing disease is a challenge that Medicare is going to face. So I think those are elements that are going to play into implementing these programs in Medicare.

Certainly in the markets that we examined, the health plans in several markets that had the most experience with disease management and were making the most investments in disease management were plans that had a history of participation in Medicare HMOs in the Medicare program. So I think there are certainly in markets that have had more experience with Medicare managed care, there are health plans that have particular experience in using disease management for Medicare populations and some of them are able to report significant results with their programs, particularly on the side of quality improvement.

MR. KNUTSON: As a researcher it's probably not appropriate for me to say we need more research, but for congestive heart failure it's close to a no-brainer in terms of disease management intervention as you can get, and then moving out from there it becomes murkier. I think the question for us is, the first observation about Medicare is that a whole lot more of what should go on is probably embedded in good primary care because of the complexity, especially as we move to caring for people with complex medical conditions or the frail elderly.

I don't think we know yet, or at least I don't, how one would on the margin figure out where to put energy. For example, do you really go after, beyond CHF, the most severe end of the spectrum for this condition and then move on to--I don't think we know that. We don't know the relative cost effectiveness of any of this, or cost benefit I should say in this case. So I think that kind of research is needed.

I think it's promising the new demonstration projects that CMS has been initiating. I think this story from North Carolina is promising in the sense that you can start working in the fee-for-service world and maybe build from that some capacity to introduce what we call good managed care. But I don't think we know enough to know where to start, and where to go next, and where to go after that; at least, as I say, I don't.

MR. SIMMS: I would say just with your second question dealing with how do you tie in the intensive case management with the disease management, what we've done with the North Carolina experience is it ends up being more of a care coordination thing.

Specifically with the children that we serve in our program, like for example the children who end up being asthmatic children, we figure out ways to really do care coordination for them by tapping into other case managers that are currently coordinating service for those children, like the child service coordination. That's why it's so important to have all of the

stakeholders bought into it at the local level because what we end up identifying and finding is that, you're right, there are a lot of other case management programs going on with some of the patient population but what we're able to do through Community Care of North Carolina is really try to develop a system of care for that particular population. So I think there is a need for the coordination with the intensive case management in addition to what's being done on just the disease management side as well.

MR. MULLER: Jeffrey, especially you point out that when budget crises come all of a sudden there's not as much investment in these kind of programs. I think one could certainly see, given the complexity of the American health care system why one would for qualitative reasons want to invest a lot in care coordination and care management. But given the kind of budget crunch where we talk about budgets for Medicare, Medicaid and so on, my guess is the bigger thrust will come on cost savings rather than quality improvement because that's what people I think are more likely to put their dollar behind is where you can get the big cost savings.

I could see where in disease--if you could have a low cost disease management program from identifies--I'm talking about this now from the point of view of cost savings rather than from quality improvements, a low cost disease management program that then helps you target where the costly interventions perhaps can be avoided. Because I know there's evidence, for example, in using prenatal care as a way of avoiding infant mortality and premature birth and so forth where you can obviously save some big dollars. More in the Medicaid program, obviously, than the Medicare program, by getting people to prenatal care and then trying to avoid obviously the very costly consequences in dollars as well as obviously in the quality of life of prematurity. So in that sense, if one can use low cost interventions like just monitoring a person during pregnancy as a way of avoiding that one--what I'm searching for is, are there lower cost disease management programs that then led to big cost savings, because I think that's--insofar as we are looking at disease not for quality of care but also as cost dampening strategies, my guess is that's where the real appetite is going to be for those kind of cost savings.

MR. KNUTSON: If I could make one more comment. One of the areas that might be promising and I assume you probably thought through this a bit, is monitoring the introduction of palliative care benefits by some insurers. Even though it's a little early it seems to be promising from a lot of perspectives. It would be one of those areas where we start with the assumption that the individual--nobody wants the care that's being provided, and which just haven't figured out how to get the right decisionmaking environment. I mentioned this agency problem before. Palliative care is a great example where you're continuing treatment but you're adding this thing and it looks like it's producing some savings or least breaking even.

But again it's early. There's been some Robert Wood Johnson-funded studies that are worth looking at, and maybe more that I'm unaware of, but I certainly would think that would be a

good start and a way to try to figure out how to get a new perspective on decisionmaking or on treatments that really nobody wants, including the patient.

MR. FEEZOR: Thank you. I'd like to thank all three of your for an excellent presentation. I feel a little bit like it's old home week. In my previous existence out at CalPERS I was always a part of the health system changes survey; looked forward to that exchange and see some of the information coming back. And actually before leaving for California I worked with Jeff to set up one of those community care programs and it's good to see a report and see you again, Jeff.

A couple of observations. David, first I'm struck by your comment that we have not spent enough time looking at how important that patient-provider decisionmaking role is. I'll take your bid for additional research. Probably need to look more in terms of variation of how disease management, various disease management programs engage the providers or bypass them, and perhaps trying to get some better analysis around the kind of consumer, whether it's as Judy would say, one of the more engaged consumers or not, to really begin to tool up our effectiveness. I think that would be ripe for research.

Glen, one question for you and then--let met start with a comment on Jeff's comments that will follow up a little bit on yours, Ralph. I think one of the important things that made the community care programs begin to really take off was the feedback of information. Jeff mentioned that in his presentation. This went to providers or to those committees, and it is analogous with what I think Glen was talking about, that most employers now are pushing very hard from, whether it's certain disease management vendors or their claims-payers, for the kinds of information to begin to target that.

I think to underscore another component that came out though in Jeff's comment is that that $2.50 or the monies that go back, don't necessarily go back to be spent for clinical decisions. His comment about having the health department, social services sitting at the table, that many instances those monies will get allocated for something else, which I think is something that is an interesting juxtaposition if you start thinking about how do you apply this to an older population.

Having said that, I think a key difference in the community care programs in most of the communities, areas that I'm familiar with that Jeff's presentation referenced, you have a smaller subcomponent of the physician and provider leadership there, and a group that probably works together even though they're not in any sort of large group practices for the most part, but probably work together in more of a community spirit that you may not have that same dynamic to broader providers who in fact are dealing with the Medicare population.

Then the obvious or the final thing is that obviously the Medicaid population tends to be less hospital and more outpatient, so it's in the individual physician's own interest I think to participate more actively in some of that and I think that has been the success of the program.

Glen, one question for you. In looking at those employers

or employment-based coverages that are beginning to do what you call high risk identification on the front end, any discussions or problems noted with respect to privacy issues or ADA implications?

MR. MAYS: I think those are definitely concerns for employers that are trying to move in this direction. We didn't hear of any employers actually encountering barriers or not being able to proceed because of those issues, but they're certainly issues that they have to work out in moving those programs forward. Particularly we heard of some employers who are looking at ways to bring together their health care claims data together with their information on their experience in their workers compensation to better target these interventions and also to better monitor effects on the back end. In doing that those same issues also come up and integrate in those databases.

But again we didn't hear--certainly those are issues that employers are confronting in moving this forward, and to be sure there's not a lot of employers out there doing this at this stage. It tended to be very few, large employers in the markets that we studied. They're addressing those issues but they don't appear to be game-stoppers in terms of...

DR. NEWHOUSE: I'd like to echo the thanks to you for taking the time and effort to come and sharing your information with us. I'd also like to go along the lines that Ralph and Allen started, how do we take this over and apply it in the Medicare context? My first question is actually just something for my own information. I struggle, like everybody else is with, how is this organized within the context of traditional Medicare?

So my question is, if traditional Medicare is having demonstrations of disease management, which I thought I heard somebody say, who is running these demonstrations? Not CMS, but how is it getting implemented on the ground? What is the entity that is actually out there is managing disease and how does it integrate with traditional Medicare? Can anybody enlighten me on that?

MR. HACKBARTH: Can any of the panelists answer that? If not, I think one the staff probably--

MR. KNUTSON: I can make a start. I think maybe a staff person would know more. There are five or so demos that one could, if you look inside of them see some, for example, quality incentive or it's a disease management demo, per se. There's the capitated disease management demo where possibly 30 sites are soon to be announced, between 20 and 30, and those will be typically provider-sponsored organizations. They can be M+C plans but the preference is not. If it is an M+C plan selected, they have to enrollee two from fee-for-service for every one that they rollover from their M+C product.

There are others. There's a demo that is a straight disease management demo where a case management fee, I believe, is paid to a disease management organization and then they need to show savings.

There's a physician group practice demonstration project which--

DR. NEWHOUSE: That second one, how are the beneficiaries

identified?

MR. KNUTSON: I know there are two or three sites and from what I understand, and I'm going to be right out on the edge of the limb here, they're doing actually a randomized controlled study. They're actually finding people eligible and then randomizing in or out of that program.

DR. NEWHOUSE: But as Glen said, we don't have a drug benefit so we can't identify that way.

MR. KNUTSON: The idea was that they would include that and still show a savings. They might include a drug benefit.

DR. NEWHOUSE: But you have to have some prior knowledge about the drugs that are being used to--I don't want to put you further on the spot but I'd suggest then maybe this is an area we should find out something about. Maybe staff could follow up.

AUDIENCE SPEAKER: I'm actually a CMS staff person and I work in the demonstration group. What you've said so far is pretty much dead on. I also wanted to let you know that a week from now my director will be briefing MedPAC on the demonstrations, specifically the disease management demonstrations. So if you have any further questions she might be able to answer that.

DR. NEWHOUSE: I'm just still struggling with beneficiaries with multiple problems, dealing with multiple providers, many of whom are in very small groups or even solo practice, with no drug benefit, which affects both the targeting side and the compliance side, how this even starts rolling down the runway, let alone gets in air. But I'd be delighted to be shown how it does.

There's one just point of information I wanted to make which was some data I saw the other day that I found interesting and I thought cast the enthusiasm for disease management is a somewhat different light, although not entirely, which is I think the enthusiasm at least as I hear it stems from the observation that--pick a number--5 percent of the beneficiaries account for half the dollars, and following Sutton's law, go where the dollars are. These people are largely people with chronic disease, et cetera.

The data I saw divided the distribution of people by spending into thirds, so it looked at the bottom third, the middle third, and the top third of spenders. Then it looked at the rate of increase in each of those thirds over time. Lo and behold, they were almost the same, the rates of increase, which is consistent with the notion that the general shape of this distribution doesn't change. That is, for many years it's been the case that 5 percent of the people account for half, plus or minus, of the dollars, which suggests that disease management may be fine, although as David and others said, the jury is even out on that. But it's presumably not doing much about the two bottom thirds of the people which are some substantial share of the spending. So this suggests it may be an answer but it's not the magic bullet.

DR. NELSON: I also have an observation and a question. To some degree my observation follows what Joe was pointing toward. It has to do with my suspicion that the cost benefit calculation for an employed group may not be transferable to a Medicare

population because there is a time window. It's to the benefit of the employer or the insurer to manage the diabetes, defer the renal failure and the other complications until a person retires. But the Medicare patients may not necessarily avoid that expensive crash; it just comes later. And when it comes it may even be more expensive if it involves Alzheimer's disease or cancer instead of a nice clean quick coronary at home. So not being Kervorkian in this, I still think that we have to be cautious lest Congress jump to some leaps in scoring this in overall program savings.

The question that I had for Dr. Knutson drills down a little further on your statement that these programs shouldn't be physician visit based. What is the most sensible basis for reimbursing these activities? Is it with the team being reimbursed? Or is it capitation plus visits? Or is it just capitation? Or is there some other arrangement that seems to make sense, particularly with respect to the Medicare population?

MR. KNUTSON: Some of the so-called pay for performance methods used now include paying explicitly for education. Medicare already does that for diabetes for recognized providers, but other purchasers are thinking of doing the same thing. Some are measuring a number of quality indicators and then offering a bonus over the top, regardless of how they were paid. If it was fee-for-service or capitation, there's some additional amount that's over and above your regular revenue flow.

I think those are, as I said, good starts in that any targeted approach like that engages, it gets us focused, it indicates a new interest, but ultimately a design needs to be something a little more global and in the fabric of the financing system. I personally think that we're working our way toward--let me give you an example. Even with risk adjustment, which is something I spent a lot of time on, you're basically coming up with your risk scores by finding the average cost, usual care usually, and it may be inconsistent with your desire to improve or increase the short-term expenditures for a particular--for disease management, per se. We haven't figure out how to build these models on some sort of--not just what is but what ought to happen, and figure out who to stage it.

One of the interesting things going on in Southern California, Robert Wood Johnson funded the Rewarding Results program, a group of health plans and providers are demonstrating a pay for performance approach. One of the things they've done, and this is a theme that I've jumped on is they will pay a bonus for hemoglobin A1C control. But they'll also pay a bonus for a clear improvement in your clinical IT application, which is an interesting thing. They actually have a trajectory and every year they go back and say, can you do this now? Can you do this now?

If they show progress they get a reward for that, and it's because they believe they need to support capacity building. The capacity building then helps prepare them for a time when we're going to run out of specific diseases with enough prevalence, evidence, money, all that, like diabetes that we can get these

good starts based on, and have more of something that's cross disease and built into the fabric of care.

How to finance that in the long run, I've been a fan of mixing fee-for-service with some budgeted amount based on some-- instead of what-is, some oughts in there too. So it's a little bit of a nuanced partial cap idea I think in the long run. But the whole world is grappling with that right now. I don't think we really know yet. I certainly don't think that 5 percent based on your hemoglobin A1C controls going to be the long run solution but it's a good start.

MR. SMITH: Thank you, all. This was very useful.

David, a conundrum embedded in your presentation I just want to raise and ask you to reflect on and then a question. You say that disease management can't be visit-based and for obvious reason that makes sense. On the other hand, you report that beneficiary or patient compliance goes up dramatically when this comes from the physician. I suspect that there's more to that relationship and something that would suggest that the visit, or at least the supervision of the visit, or the place of the visit probably continues to play an important role. I suspect you've thought about that and wonder if you could must on it for a bit.

Second question, you talked about the wild card importance of the patient role and I wondered if there had been any experience with financial incentives for patients or financial incentives that shared savings between the provider and the patient.

Jeff, a question for you. The nursing home pharmacy compliance rate was staggering it seemed to me, that 74 percent of the recommendations were implemented. I couldn't figure out, and if you could talk a little bit about it, who paid for those? Did you pay for them independently? And then, who is responsible for implementing them and why did they? Why would they? What was the incentive that worked? Did you have either a participation incentive or a financial incentive? Did you share the savings? How did you get that extraordinary compliance?

MR. KNUTSON: Regarding the visit-based approach, that statement is based upon the current, the typical visit, and the 15 minutes and the time spent, even with good rooming, preparation and other things it's still not adequate and therefore a program is needed, one at the organizational level. Now I think there's a broader trend that is also a wild card and that is how many different access points will emerged with Internet and telephone and other sources that will be optimal in terms of the right access point at the right time to get the appropriate care? When one thinks like that, then the visit probably will change itself.

In other words, a lot of visits are simply, in that context, unnecessary and time could be better spent in counseling, coaching, in serving as the good agent if you will, meaning understanding the values, the preferences of the patient, especially when the patient has more economic responsibility for treatment choices. How that all is organized I think is potentially an efficient way to go. So the visit could be the core of the whole thing ultimately. I don't know. But right

now, the way the treadmill works you just can't build a chronic disease or a disease management program on it.

The second question?

MR. SMITH: Asking whether you had any experience thought about--your point about the importance of the patient role, and I wondered whether you had experience with financial incentives either directly to beneficiaries or patients or shared incentives with providers.

MR. KNUTSON: The Weingarten meta-analysis actually--and I didn't cover this--included in it some programs that did provide a direct financial incentive for so-called compliance with disease management programs and those actually produced some of the more significant improvements really. So that is an option. There are other kinds of incentives for patients that include--that are more in the choice environment where you have somehow lower coinsurance, for example, or a lower out-of-paycheck deduction if you choose a higher quality provider, ostensibly a provider who's doing all these good things that can be measured and that's going on.

But anyway, I think that's been a limited amount of direct payment. Where it's been done according to Weingarten's study it looks like it's effective.

MR. SIMMS: To answer your question about the nursing home polypharmacy, the major incentive was the $29 million reduction in our budget that we needed to get something in place to really begin seeing--then on the provider side it was a fear of reduction in the rates. So what it ended up being was that partnership again where we got the nursing home long term care pharmacy association to work with the community care providers to implement these strategies. The funding for it was actually taken out of the $2.50 PM/PM. They then invested that money into getting the pharmacist to work along with the provider to implement the program.

DR. WOLTER: Allen and David essentially asked my questions, but just a couple things that have occurred to me through all this. I think there's a bit of a tension in this conversation around the intensive case management versus the more population approach to disease management, and that's normal I suppose. But if you think about the world of quality as it's unfolding, much of what's being discussed is what patients don't get when they should get it, and that in many cases drives outcomes over a long period of time that aren't as successful as they could be. That investment doesn't get you the shorter term cost savings but it may create improved health outcomes and save you cost in the long run. So that's just something we have to wrestle with.

Also, I could not agree more, I don't think the current model of care which is based around an episodic visit adapts itself very well either to some of the new system approaches that we need for quality or to intensive case management for that example. So to move from what we have now to something else probably would require some type of an investment since we don't have good data right now about how well those things will work, and which models will work the best, and how much money can be saved. If you looked at it in a non-governmental or non-health

care model, it would be some investment in research and development is probably going to be necessary to find some models that can create some success.

Personally, I think there's a lot here in terms of where we could go in terms of how health care delivery system could change to attack these problems better. I think the problem we have is we look at adding incentives to the current way that health care is delivered rather than maybe create incentives around newer models of care. I think that slows the whole process down and I think Joe was essentially making that point earlier.

MR. HACKBARTH: There is a lot that's very appealing to me as a layman in the basic concepts here, but I think that Glen in his presentation is right in saying that a very basic strategic choice for Medicare is, do you try to accomplish these things through the traditional fee-for-service program or through private options that are made available to Medicare beneficiaries? As I understand the research and what I've heard from clinicians, former colleagues deeply involved in these activities is that what we're talking about is changing behavior of both clinicians and patients at a very fine level of detail.

The traditional Medicare program that's free choice and episodic payment has many strengths, but changing behavior of patients and clinicians at that level is not among them. So you're talking about a major, major adaptation of the traditional program to make it even have a fighting chance of doing these things. Once you do that, you don't have the traditional fee-for-service Medicare program any longer. You've so altered its fundamental characteristics that you're going to have something different. Whereas, in private plans, the nature of the interactions between clinicians and patients and payers, at least on the face of it would seem to have greater potential for being melded in ways that can accomplish these goals.

So that came out a little bit more definitive than I meant. There's a question mark at the end of it, but that's my instinct on the question that Glen raised.

DR. REISCHAUER: I thought the presentations were very good, and along with the others, thank you for coming and sharing your wisdom.

I want to build on Glenn's remark but in a slightly different way. I think the research suggests that physicians and groups don't practice different kinds of medicine for different payers in a sense. I'm wondering if this does spread, become more common among employer-sponsored plans, wouldn't maybe a lot of the benefit from it, without any action by CMS or Congress, spill over possibly? Some of this involves changes in the behavior of physicians. Some of it involves the development of capacities, different kinds of people, different IT systems within the offices of group practices or others. In a sense, some of it is a fixed cost in a way and once you've done if for one group there are economies of scale, and then there's a small amount that is a variable cost.

If this proves to be a trend that will improve outcomes or reduce costs I think Medicare should move forward in a proactive way, but I'm wondering, if it doesn't whether at least some of

the benefit is going to accrue to Medicare anyway.

MR. HACKBARTH: Sometimes he asks these rhetorical questions.

DR. REISCHAUER: I was thinking also, within North Carolina, how many of the folks in the Medicaid system really are involved in this effort? As you said, the dual eligibles are under a different set of rules that constrain you. I didn't know if everybody else in the system was participating in one way or another. You said it was those groups, those physician groups that volunteered and came into this, implying that there maybe are a number of people out there who aren't, and we're dealing with 50 percent, 25 percent, 90 percent, I don't know of the non-dual eligible population. Did this spill over to other people?

MR. SIMMS: Let me answer the North Carolina piece real quick. In the statewide Carolina Access program, which is the one that I was saying is the foundational program, we have probably about 4,000 primary care providers contracted to participate in that program. So far in the Community Care of North Carolina program with the 13 networks we have over 2,000 providers participating in that. So it's the remaining 1,500 or 1,700 that we're still having to transition into the Community Care of North Carolina. Some of those will be providers who have smaller numbers of Medicaid, so therefore, their investment in this will not be as great of some of the other providers. But the bulk of the safety net providers are already in the program and now it's a matter of going and dealing with the provider who has 100, 250, 300 Medicare patients.

On the patient side, the bulk of the patients are going to be the women and children who are eligible for Medicaid. Now we have some of the elderly population who may be straight Medicaid that we do have enrolled, but the bulk of them are going to be the women and children.

MR. KNUTSON: I think it's true that in my own studies and in others that there's a mode of practice and it's typically common across payers. The question is when did a medical group tip into capitated behavior, this sort of thing. That's actually the theme, or one of the questions we're asking in Minnesota and Colorado with this HRQ project that I'm co-leading, and that is can we bring purchasers together to so-call align incentives so that it produces not only a coherent signal but the magnitude that can get the attention of a provider group?

One of my favorite mechanisms of financing was the buyers health care action group product and I, along with a lot of others of us in the Twin Cities have studied it and written about it. But it's dying. One of the reasons it's dying, even though these care system, provider care systems have loved it, is that it didn't generate more than a few percent of revenue for any of them.

This was a problem for them to such a degree that they actually invited three years ago CMS in to talk about whether Medicare would be willing to purchase directly from them using the same mechanism. The belief then was, and I think it's still there, that employers can innovate. They're rarely stick with a game plan. These can't. It's just not in the cards. There is

progress. Things happen. NCQA comes along. But frankly, they can't stick with a game plan. They can innovate. We watch what they do, but until Medicare does it, it's not institutionalized in this country. We're working in Colorado and Minnesota on just getting Medicaid and commercial purchasers together with the hope that maybe somewhere down the road we can bring Medicare into the same financing scheme.

So I think you're right, but I think the question is a critical mass of everything.

MR. MULLER: If we're thinking of disease management, case management as a way of trying to dampen those curves on all three thirds of the population, in other words, the whole population that Joe referred to earlier, then I think there's some things going on along the lines you suggest in provider systems and so forth that tries to, for the reasons that Nick mentioned, where people are trying to look at quality efforts that reduce variations in care along the lines that panel, Elliott and others mentioned last month. So there may be some transference from what's going on in the non-Medicare population to the Medicare population.

But if one is looking at trying to reduce the number of high cost cases that occur--I understand in a distribution there's always 20 percent or 30 percent high cost, but if part of this is really an effort to reduce the number of cases that become high cost cases then I think the evidence is not, as I said today, is not that clear that disease management is making a big difference in causing that to occur. I think one of the questions we have in front of us is that what the people who are trying to control cost in the Medicare program and trying to ultimately target here is to reduce that number of cases that evolve to high cost, and whether it's having palliative care rather than high cost ICU care at the end of life? I think that's one of the questions for us to consider, where the evidence is on what causes those high cost cases to not occur.

DR. WAKEFIELD: Mr. Simms, just a quick question for you. When you rolled your program out did you see any sort of differential successes or challenges in rural versus urban communities with regard to your disease management? Did it play differently? Was it easier to do in rural communities in engaging and developing networks? More difficult? Any sort of differential impact when it was rolled out?

MR. SIMMS: Allen may be able to respond to this. He was in one of the rural communities when we--I guess it would be considered a rural community. What we were able to--definitely more of the providers there served the Medicaid program or Medicaid population. Where you get into the urban areas, the options are there for them and many of them will have limited enrollment in the Medicaid program.

So I guess that really is the major thing, is that when you begin dealing in more of the urban areas we have the community health centers who were the larger providers and a lot of the outpatient centers were the larger providers, and they're the ones who end up being the safety net providers in those communities. So when you really begin moving outside of that and

start tapping into some of the private providers, that's where you really have fewer or limited enrollment, whereas in the rural communities pretty much every provider there serves Medicaid and they serve Medicaid in a large number. So that really is one of the major things that we've seen.

MS. DePARLE: I wanted to follow up on the point that you made earlier, Glenn, about the difficulty that Medicare has in doing some of these things. I tend to agree with you and have certainly had that experience, and it's one of the reasons I've made the argument that private plans have an important role in Medicare. But I actually heard something today here that I think gives me a slightly different takeaway, and it's from Mr. Simms' experience in North Carolina, because as I understand it that is fee-for-service. You're not talking about managed care plans doing this. So I think in a way I take away from this the argument that many of us have made is that traditional Medicare--fee-for-service is really a misnomer, but traditional Medicare needs more tools to be able to be more effective. We didn't get that granular on exactly how did they do this and whether Medicare could ever do that, but I found this to be somewhat hopeful in that sense that at least in a state they've been able to do some of those things.

MR. HACKBARTH: Jeffrey, my understanding was that in North Carolina that we're talking about a limited network of providers. This is not everybody that serves Medicaid recipients. We're talking about a select group of providers, the so-called safety net community health centers?

MR. SIMMS: No, actually pretty much we have--it's all the providers that we contract with, primary care providers in North Carolina that serve Medicaid. Now the safety net providers end up being part of the networks, but we're talking about private providers as well that we have contracted with through our primary care case management program which is a fee-for-service program that allows you to link Medicaid patients with a primary care doctors. So it is statewide as far as the number of contracts we have with the doctors. So it's not limited to just safety net providers. These are private providers, family practice, internal medicine, pediatric practices across the state.

MS. DePARLE: Do you have an estimate of what percentage of the total providers in the state you're dealing with?

MR. SIMMS: Actually I would say--let's do it by specialty. Pediatrics, I would say it's pretty much 100 percent. Family practice I would probably say 98 percent of the family practice docs. Internal medicine is where it gets a little iffy because you're going to bring in some of the specialists and stuff as well, but I would say in that arena we're probably dealing with 75, 80 percent of the providers across the state. Pretty much the way the program is established is that if you're going to serve Medicaid in North Carolina on a primary care provider side, that most of the providers are going to be in the Access program, Community Care of North Carolina, because they realize this is the way to do it, because the program also gives them an opportunity to have some control over how they serve, manage the

population, because of the linkage with them they then have control over the referral system and stuff for the patient population.

DR. MILLER: I just wanted to get in on this because it hit one question that I had written down, because I also thought some of the things that I heard in North Carolina were a new twist on this that I hadn't heard in lots of other discussions that I've been involved in, particularly the ED, the pharmacy, and the nursing home. You also mentioned therapies quickly.

I think the question goes like this, can you help us to parse out how what goes on there is different than the standard prior authorization types of activities and how it's more like disease management or case management? Or how would you characterize what's going on in those settings? Because I think it does get to how it works within the fee-for-service environment.

MR. SIMMS: I think it goes back to what I was saying is the fundamental or the foundation that we've been able to establish in North Carolina. That is, first of all, having a strong enough provider network system across the state willing to serve the Medicaid population, and we did that through the ACCESS program. Then what we were able to do is then link the Medicaid recipients through--originally we started out as a 1915(b) waiver program that gives you the ability to mandatorily link certain eligible populations with a primary care provider that you've contracted with that will say, I'll provide 24 hours, seven-day-a-week coverage. I'll refer to specialists. I'll serve as the gatekeeper of the health care services.

Those are really the fundamental things that we did ten years ago that we're now building upon through Community Care of North Carolina with things like disease management, the care coordination, the pharmacy advantage list as well. So really the fundamental thing that had to happen was the linkage of the Medicaid recipient with the primary care provider and having adequate providers and an adequate provider network to serve them.

MR. HACKBARTH: I'm sure we could go on for quite awhile. Carol, I'm going to give you the last word here.

MS. RAPHAEL: I'm just struggling with how to think about the fee-for-service system because as I look at this four key things have to happen. You have to move to a science of medicine. You have to have clinical guidelines that are widely accepted and diffused. I think, Glen, you said that you saw some sense of more adoption of this.

Then you have to have a notion of individual responsibility for your own health, that it's no longer just vested in the profession but that you as an individual have some clear responsibility. So that's another major change that has to occur, potentially cost-saving change if we shift some of the responsibility off to individuals.

Then you have to think differently about the unit that provides the service. I'm not entirely sure, except that we think it has to be a team. Again, maybe we can do some labor savings here if we move from higher cost professions to lower

cost professions.

Then you have to think differently about the time dimension because you aren't only measuring short term outcomes here. You have to really look at longer term outcomes, which led you to think that Medicare had more opportunity because we have a more stable population and would ostensibly have more incentive to invest.

So what I'm struggling with is where Glenn was, how would you put all of these major changes together in the fee-for-service system, and what are the mechanisms that we have that could effectuate these kinds of changes? I was just wondering if any of our panelists had any thoughts about that.

MR. KNUTSON: All I would say is I think you're on a couple of important tracks right now. I think North Carolina's experiences is very informative. I think there are some other states who in their Medicaid programs are going to move down a similar path with their PCCM program. Colorado, for example, went from eight or nine HMOs down to one and I think it's stopped enrollment right now. So the question is, what can they do to not go back to traditional fee-for-service and yet build care management into their fee-for-service system? There are, from what I understand, a number of states, maybe a handful, looking at the same thing. I would figure out who they are and monitor their progress and follow North Carolina.

The second is, the CMS demonstration projects when you really get into them are quite interesting, particularly the capitated disease management program. It sounds like you're going to hear about it, but some of those look really promising to me to be informative about what Medicare can do.

DR. NEWHOUSE: This is a suggestion for our chapter actually and it builds on the notion of Alan Nelson talking about employers deferring cost, and Nick talking about underuse and upfront costs in the hopes of later savings, and Carol talking about the longer run view. Jim Lubitz about a month ago published an article in the New England Journal in which he tried to assess the effect of the decline in disability on longer run Medicare costs, and the answer was it was about a wash. That suggests to me that disease management and case management, probably both, ought to be framed on the research side of having very great importance on better health outcomes and quantifying those. That that's where the value is. That probably the costs may be about a wash.

Moreover, it may be a very long time before we actually find out the answer on cost, but first of all that the longer run framework or the lifetime framework is the right framework to have and that it's very important to get some kind of assessment of health outcomes in these the programs even in the shorter run.

MS. BURKE: The target group may not necessarily be the top third. Part of this issue is that it really may not be about costs and about he drivers for the top third, which are acute short-term episodes at the end, but rather a long-term investment in better outcomes that may affect it but in a different scenario. So I think we have to think about it differently.

MR. HACKBARTH: Thank you very much. It was very

informative and I'm sure we could have continued through the afternoon but other things beckon. Thank you.