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SOLVING THE RX ADHERENCE PUZZLE

Five stakeholders explore the "why" behind non-adherence and the emergence of health psychology as a solution

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Many solutions to combating Rx non-adherence have been tried, yet this remains a global health problem with myriad implications. In this candid discussion, Marc Iskowitz talks to payer, provider, academic and pharma stakeholders about the emergence of health psychology as a solution to this pressing need

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Marc Iskowitz (*MM&M*): We're going to talk today about the roots of the non-adherence problem and discuss some different approaches to solving it. We have a great group here from different parts of the healthcare ecosystem. Please introduce yourselves and say a few words about your experiences with adherence interventions.

Craig Schilling (Optum): I came to Optum about five years ago specifically to build medication-adherence programs. We currently are working with commercial and Medicare Advantage payers to implement medication-adherence programs across large populations. We also have a stated claim to a drug-adherence index, which is a predictive model that allows us to target specific members who are at particular risk for non-adherence so that we can select members a little bit more appropriately for intervention. In addition to my role at Optum, I also serve as the adherence work group chair for a Pharmacy Quality Alliance. PQA is a national measures standard organization, so they develop pharmacy measures and actually implement those measures with various quality organizations. Most notably, they have developed adherence measures for the CMS star ratings. So, it's a very important organization, as we evaluate medication adherence and how we develop additional measures that allow members to do better with their medication.

Prof. John Weinman (Atlantis Healthcare/Kings College, London): I'm a clinical psychologist and health psychologist by training and I've taught doctors and medical students for many years at a large medical school. My research, really, over the last 20 or 30 years has been concerned with how patients deal with illness and the rung of patient behavior in the outcome of illness across all major illnesses. And one of the behaviors I've become really interested in probably the last 20 years has been adherence and truly trying to understand two things: One, what are the drivers of non-adherence? What are the really core factors that lead to patients deciding either to take less than or none of their medicines? Two: To develop measures for really assessing some of these key factors and the perceptions that patients have of their illness and their treatment and the beliefs they have about those types of things, and then, in the last five to 10 years, we started developing interventions that target those factors that we know drive non-adherence, which I'll talk about later. In that role, I've got linked up with Atlantis Healthcare, who really based a lot of their interventional work on the research that my colleagues and I have done both in the UK and in New Zealand.

Rich Daly (RavineRock Partners): I was the president of AstraZeneca diabetes in the US and prior to that I had the opportunity to work in the pharmaceutical business for more than 20 years and worked across—on an enterprise-wide basis—nine therapeutic areas in the spaces we'll be talking about today, both in the US and in many countries in North and South America. So I've seen the cultural implications of adherence and the cultural drivers of adherence and what Professor Weinman's been talking about and we've been talking about here with Craig and the index. My interest is deeply rooted in understanding how these factors drive patient care and what pharmaceutical companies can do to help in the ecosystem that you talked about, Marc, and how pharma companies can play an essential role as the healthcare system continues to evolve and really see what we can all do to play a broader role in improving care and outcomes for patients. Because the healthcare business is going to change, and the pharma companies have an opportunity to really step up and play a different role. So I think there is an opportunity here to take all the things we've been talking about and put them together in an integrated fashion and provide better care.

Jeffrey Weinstein (Hunterdon HealthCare Partners): We're a clinically integrated delivery system and we're located in Flemington, N.J. We've been operational for about 16 years and somewhat unique in that from the beginning, it was all developed around what were we going to do to prepare for the future. Well, we didn't know what the future was. We thought the future, in our mind, was taking care of groups of populations. We have a number of ACO arrangements

with most of the major payers in our state. In fact, we signed the first Aetna ACO in the state of New Jersey. In fact, we're one of the original Aetna ACOs in the country. We participate in Horizon Blue Cross and Blue Shield, patient-centereds medical home, ACO, we're part of the Cigna CAC, and we're also part of the CPCI project for CMS. Ten of the 70 practices in the state of New Jersey are practices that are part of our organization. We also embraced early on the concept of a patient-centered medical home, so we have 24 sites that are level-three NCQA-certified as a patient-centered medical home. Everything we've done has been about how can we take a group or population—whether we're taking risks for them or whether we're just taking responsibility for their healthcare—to say, "How can we bring down the cost?"

We eventually became a triple aim: the right care at the right time at the right price. As a healthcare system, we actually won an award a number of years ago for the program that we put in place for those that didn't have means to get their medication. And that was one group of people. But more importantly, today we're looking at how are we taking care of patients to make sure that they're actually taking their medications. As we know, if we can get them more involved in their own healthcare just by simply taking the asthma medication, the diabetic medications, their cholesterol medications, long term, they'd not only be healthier, but it would be less expensive, and we're in the realm now where ultimately we're going to be responsible for the population as a whole.

John Hosier (Eisai): I've worked in sales and marketing for a number of different companies here in the US and I've done some account-management work with government payers, managed-care payers, as well. I've spent a fair amount of time with Medicare's seventh scope of work back in the day when quality was defined not by outcomes but just by screening measures and increasing the number of patients that churn through even before diagnosis. I spent a lot of time with chronic disease states, trying to convince payers that by getting further in pharmaceutical intervention, we can lower overall cost of the patient only to find out it falls on deaf ears because you're saving a medical benefit or a medical director's budget at the cost of the pharmacy director's budget earlier in the process.

I've sat over a number of different specialty and primary care products, spending a great deal in marketing and a great deal of money on behavioral and attitudinal surveys only to throw them all out—after we segment the patients—just decile them and come up with a one-size-fits-all national plan and then wonder why it doesn't quite fit. And so now, my current role . . . a lot of other traditional operations functions that don't apply here, bringing in-house some of the strategy and capacity work that a lot of the marketing teams across the industry are currently outsourcing to their agency of record, starting a digital agency here trying to move across channels to be able to develop full patient candidates.

Marc Iskowitz (*MM&M*): John's comments are a nice segue to the next question. What's been tried in adherence is a mixed bag at best and non-adherence, as we know, remains a major global health problem. And it doesn't discriminate. One of the things I find most interesting about it is that the non-adherence rates for things like transplant/organ rejection and oncology are right up there with some of the non-adherent rates for chronic disease medications. So, Professor Weinman, you've prepared a paper for the NHS in which you identify weaknesses in current adherence interventions. Two that I found

interesting were that a one-size-fits-all approach doesn't work and that very few interventions were informed by theory. Can you elaborate?

Prof. John Weinman (Atlantis Healthcare/Kings College, London): Sure. What a couple of colleagues and I did two years ago was, as you said, to prepare a paper. And we reviewed the evidence. We looked at the large reviews—the Cochrane Reviews—of adherence interventions, and we also looked at a lot of really seminal papers that had been done on adherence interventions. And the thing that really stood out was that everything worked a little bit, sometimes for a short time, sometimes not for very long at all, but nothing really worked in an impressive way, in a sustained behavioral change sort of way.

And the two points that you picked up were really crucial—that actually, what most of the interventions do is they were doing a single thing to try and reach everybody. Often they're either reminder-based or information-based, so just a single thing, the sort of one-size-fits-all. So they weren't really paying attention to all the different sorts of factors that we now know can drive non-adherence—a wide range of factors which we'll talk about today, I'm sure.

The theory argument is an interesting one and it sounds sort of academic, but it actually turns out to be more crucial. What a theory does, if you have a theory of behavior—let's say a theory of why people are non-adherent—what that theory does is provide you with the framework for explaining the behavior, so it identifies in a structural way the factors that drive that behavior. And the theory is only any good if (A) it predicts the behavior, and (B) by changing the factors that you think are associated with the behavior, the behavior changes.

So a theory does provide you with a really powerful framework, both for explanation and prediction, but particularly for developing interventions. And when we looked at the existing work, you know, relatively little of that existing work was theory-based. It was just, "Oh, here's an idea. Let's just bring it in and see if we can change it here. Let's provide reminders or this, or that," without really looking at what explains non-adherence, which is what a theory really does for you. And they were two major deficits in the previous work that

we worked up to five or six years ago.

Marc Iskowitz (*MM&M*): Right, so it's been more of a scattershot approach, if you will, rather than one informed by theory.

Prof. John Weinman (Atlantis Healthcare/Kings College, London): Yeah. I mean there clearly has been theory-based research, but it hasn't really played the role it should have.

Marc Iskowitz (*MM&M*): Is that an "aha" for anybody? It sounds like there's a lot of experience with what's been tried already.

Craig Schilling (Optum): Yeah, I mean I can't agree more with Professor Weinman when we think about where we've come in trying to approach adherence interventions. For many years I think there was

a lot of dogma about the issue of non-adherence and the implications of non-adherence, and it's really only been probably in the last five to 10 years that we've turned the corner and now we're actually trying to figure out, "Well, we know it's an issue. Now how do we try to solve the problem? How do we work with our members and our patients to change chronic behaviors?" And when you think about the reminder approach—I think a lot of people use the reminder approach, whether it be telephonically or through other modes of communication—you're really only getting at the forgetfulness barrier, and that's one of many barriers. And I think we can all agree that forgetfulness is pervasive among all of us, and it's probably why the industry went toward reminders so early on, but it's much deeper than that, as Professor Weinman is describing.

Think about all of our different interactions with the healthcare system. All the patients out there have years of experience in their healthcare system with their physician, with their nurse, with their pharmacist, with their family members, and that's all different. And so here we have a situation where we need to identify someone who's not taking their medications. Well, why is that? Well, that's founded on the years of different experience among all these different individuals on why they may be deciding not to participate in that regimen. So absolutely, one size does not fit all, and we do need to dig deeper to find out what those reasons are.

Marc Iskowitz (*MM&M*): Right, moving from a population approach to an individualized approach.

Craig Schilling (Optum): Absolutely.

Jeffrey Weinstein (Hunterdon HealthCare Partners): But from our side—from the provider side—part of our difficulty is identifying early on who isn't being adherent. And very often, the information we get back from the pharmacies is stale because it's claims data—if we get it back at all. Because we've made a point of trying to utilize—because we feel one of the problems or barriers is sometimes cost—trying to utilize the low-cost and free fills that people can get at places such as Walmart and Stop & Shop and so on—that information doesn't get logged anywhere, so if we're looking to get something back from a claim, we don't get that back and it could sometimes be 90 or 120 days later that we found out they didn't even start the medication. So we talked earlier on about the whole idea that there's a lot of information, but there isn't a whole lot of analytics going on, and this is one area where I think we need more analytics. We need to find out—we wrote the script—did they fill it initially, let alone take it long term?

Rich Daly (RavineRock Partners): One of the challenges that I think we face is there's a discussion about Big Data, and it seems to be all the rage in the world. Well, we've lived in the world of Big Data for two or three decades in pharma, and what we're starving for is Big Insights and some of the work that Craig has done and I think some of the work Professor Weinman's done is now beginning to get—and what you're talking about here, it's the who [points to Craig], you're talking about the why [points to Prof. Weinman], and now you're talking about "let's predict" [points to Jeff]. Now, if you take all of the who, the why and the prediction and now you're putting it into actionable data. These are the insights that we can take and wrap into a very targeted—not to be cliché here—a very targeted "n" of one. This person is not going to act.

For instance, I have epilepsy. So, I get a reminder every three months and it's automatic, "Your drugs are coming." I take one of . . . yours, actually [points to John Hosier].

John Hosier (Eisai): Thank you.

Rich Daly (RavineRock Partners): No, thank *you!* And I mean that, thank you. And I get a reminder that the drugs are going to be filled, but between the 90 days, I don't get anything from the payer. But I'm devout in taking the drug, because I'm motivated and I'm probably the two and a half percent. I'm on the end of the scale. I'm off the chart on taking the drug. But what are we going to do?

So, the "who's not taking it?" the "why?" and the predictor, and can we get a predictive model? I mean, that's where we're starving. We're swimming in a sea of data, but we're all thirsty for analytics. We're in an analytical desert.

John Hosier (Eisai): And on the pharma side, we're stuck with how we use that data that's back with the providers and with the payers. So, if

you have a non-compliant patient, you're not going to see the clinical outcomes you want, you don't see the efficacy, they get switched off of my drug. And I want the physician to go in, fully in, with clear eyes that the patient missed 14 doses last month and that's why they're not having a response from the medication, not because it doesn't work. So when the next patient comes in and you have a choice to make, you're not going to pick mine because you think you're not seeing the efficacy that you think you should of the product. But when we collect that data, it's either too limited from the pharma side or we can't bring it to the payers and the providers without it being seen as biased and being filtered in some fashion, and that will cheapen the system for us.

Rich Daly (RavineRock Partners): And, John, that's a great point. We also have HIPAA. We can't see the patient, but you can, and you can see the data, and so where's that line where we can all work together to actually create good quality care? Because this is, Marc, to your point again, this is the fundamental point here—this is an ecosystem. You can't do it alone. We can't and you can't. We have to work together. How do you create that ecosystem where everybody is participating?

John Hosier (Eisai): And you said something else, too, that I want to tag on to. I think it's the why. It's getting away from that statistical patient we create with all of our data and trying to find that one-size perfect fit for them. So it turns out, we as marketers just aren't as smart as we thought we are.

We get thousands of lines of data and we confuse correlation and causation, right? The second fills are falling off, and we hear from an ad board that patients taking the medication cost too much in the Northeast. It costs too much everywhere, so let's change the co-pay card rules, and that's going to solve our problem, and then out the door we go with the next strategy, without really understanding—is it a Northeast problem, is it a West problem, a South problem, is it even really the issue? And how are they defining value? Is it that it's too expensive, or that they're not truly understanding the reason of why it's expensive and why it's important for them to take it?

Rich Daly (RavineRock Partners): And in preparing for this and reading Professor Weinman's work and Craig's work and just looking at what are the different reasons why someone would stop, I was actually kind of floored because, to John's point, it was always about, "Okay, well, it probably costs too much or they don't have coverage." But then I started going down the list of reasons why, and not to bore anyone, but No Coverage; they Don't Agree with the Diagnosis—that's kind of shocking; Low Motivation—not shocked at that; they Don't Have any Symptoms—I assume because the patient was asymptomatic, they have less chance of it. But then, Marc, to your point, if I had cancer, I think I'd be more motivated to take my drugs, but I'll bend to your wisdom on that. And then there are the Culture Differences—maybe I don't have to use the drug, maybe nobody's really taken the time to explain it; Adverse Events—obviously; Insurance Confusion. You can go down the list, but I was really interested in your white paper, and just the sheer number of reasons, and you just throw up your hands and you stop.

Craig Schilling (Optum): In our program, what we do is we—once we identify the members and we have a good discussion about using data to identify members—but once we start to interact with them, we need to understand those specific barriers. And you have to kind of balance the amount of quality time that you have with a patient that wants to engage with you. It takes time to have the quality conversations with an individual, so we have to kind of be efficient in that process. So we try to home in on bigger buckets of barriers and it's getting us to a certain place in trying to influence a change of behavior. And those bigger buckets are health literacy—understanding their diagnosis, understanding consequences of not taking your medications or side effects associated with the medications. Motivation is a very significant issue and cost. And what's interesting is, that those barriers for John are going to be different than Jeff's, but they're not going to be consistent, either.

So if you look at benefit design and how members maybe have higher out-of-pocket expenses in the first part of the year vs. the second part of the year if you're a commercial member, if you're a Medicare member it's kind of flipped because then you get into the doughnut hole and all of a sudden, now you're paying for all of your medications after you've met a certain threshold and that usually happens in the latter part of the year. So, the cost barrier kind of varies over time, so what's more kind of pervasive across the population is the literacy and the motivation. But that's where Dr. Weinman's work comes into play, because that's not getting us even where we need to go. We need to peel that onion one layer further to say, "Well, why do I have a health-literacy barrier? Or why do I have a motivational barrier?"

Jeffrey Weinstein (Hunterdon HealthCare Partners): So we have Pharm.D. residents in our facility, and we also have a family practice residency. So when we've embedded the Pharm.D. residents in our family practice residency sites, and they've been able to do education with patients, we're seeing much greater adherence. What we'd love to be able to do is take those Pharm.D. residents and put them in every practice. The reality is, in the insurance world there's no reimbursement because the practice can be either paid because they saw the Pharm.D. that day, or the doc and patients aren't going to come back a second day just to meet the pharmacist, right? Yet we've proven if we take the time to sit them down with that Pharm.D. resident, they

not only understand why they need the medication, but they learn how to take the medication. It makes a difference.

John Hosier (Eisai): Does that start to increase the ownership of their healthcare, do you think? I suspect there's a group of patient population somewhere in there that just will not be adherent because they don't believe it's their problem. It's somebody else's problem to take care of them, somebody else's healthcare and somebody else's issue to deal with. Does sitting with them and educating them at that level—does that start to shift that subset of patients?

Jeffrey Weinstein (Hunterdon HealthCare Partners): I think it does. In the residency programs, though they really are commercial sites, we also see more of our Medicaid individuals through those sites, and that's the population that I think needs the education more, and they're receiving it and I think it's made a difference in their care.

Marc Iskowitz (*MM&M*): Education, health literacy—it just facilitates the process from the sound of it, doesn't it, Professor Weinman?

Prof. John Weinman (Atlantis Healthcare/Kings College, London): It deals with one of the issues. You know, I'm a health psychologist.

Marc Iskowitz (*MM&M*): Are you going to talk about what works? I know your research has covered that, as well.

"Some of the key drivers of motivation are people's beliefs, not only about condition but treatment"

—Prof. John Weinman, Atlantis/Kings College

Prof. John Weinman (Atlantis Healthcare/Kings College, London): Yes, I definitely want to talk about that.

Marc Iskowitz (*MM&M*): Okay. Can you share with us what you do know in terms of what has resonated and what were the keys to the success of those interventions?

Prof. John Weinman (Atlantis Healthcare/Kings College, London): It really goes back to what we've been talking about, which is that successful interventions really do two things. They personalize, in other words, they identify, as we've already been saying, "What is it that drives non-adherence in this person or that person or that other person?" and in identifying the drivers of non-adherence for different individuals and even for the same individual across different medications, you may find different drivers.

So it's not even personally specific sometimes. It can be treatment-specific. So in identifying those drivers in a way using really good assessment methods and then developing interventions that target those particular factors, you need very different sorts of interventions. If it's genuinely forgetfulness or lack of planning, which is true for some people, then that's a very different sort of intervention—they care very much about providing reminders and so on. But if it's a motivational issue, particularly around someone's beliefs—for example, some of the key drivers of motivation are people's beliefs, not only about their condition but about their treatment—that's a very different challenge from an interventional perspective.

There where you're challenging people's beliefs, you've got to make them see there are other ways of understanding their medicines and the need for their medicines and some of the problems from their medicines and so on. So the key, really, to successful intervention is identifying the individualized drivers and then individualizing the interventions toward those issues. Once you start to do that, you not only get the short-term changes that some of the old approaches used to get—the more reminder-based—but you get the long-term gifts and changes because what you've got now is someone a little less like some of the people you talked about who spend time with the Pharm.D.'s, people who now have a different understanding of what the nature of their problem is, why they need to do x, y and z, and also increasing their confidence and their planning ability.

You shouldn't disregard those things. Some people have real problems organizing their lives and planning their daily lives. But just targeting those things, which is what we used to do in the old days, doesn't do anything if someone really deep down is suspicious and doesn't want to take their medicine or whatever it is. So it's that combination of targeting the sort of belief-based factors—the capability factors and the other factors that can be external to the individual, some of the barriers between them and achieving really good healthcare. Sometimes the barriers are the people around them. As you said, people have their health experiences from the whole lot of different others around them, particularly for subgroups of patients who are the parents or the guardians of treatment increasing in the aging population of people with neurodegenerative conditions and so on and so on. Often it's the parents or the guardians, again, involving those people in an intervention program, so it's much more complex sorts of interventions, but ones that really get at what are the key issues for the individuals. That's where we have to go and that's where we've gone.

Marc Iskowitz (*MM&M*): In the UK, right? This approach has been tried a lot in the UK. It's making its way to these shores. Can you explain the theory behind a behavioral-based approach? We may call it a health-psychology approach. Can you talk about that a little bit?

Prof. John Weinman (Atlantis Healthcare/Kings College, London): Okay. Well, health psychology, which is sort of the discipline I've grown up with, is really concerned with understanding the role of behavior in health illness and healthcare delivery, so it's a new field. It's really been part of the big sort of psychology discipline. It's one of the newer subdisciplines that's only really been with us about 30 years, maximum, if you trace back the history of it. And so what the health-psychology approach does in terms of supporting patients is, again, it's very much what I was talking about—develop research to understand why, for a given hundred people with the same condition, why they cope in such different ways. Why one person said yes and someone else didn't. So it's understanding that variation in coping behavior, and coping behavior covers really all those aspects of self-management—from paying attention to symptoms to going for regular hospital appointments to changing behavior, and obviously to what we're talking about today, which is taking medicines in an organized way. So health psychology has really devoted a lot of research and developed theories about why there are really huge variations in self-management and coping with major illness and trying to understand the drivers that I was talking about earlier.

Marc Iskowitz (*MM&M*): So to really get to that, not only is the patient

adherent or not adherent, but there's a "why" behind it. Can the group explain how that may apply in their corner of the health system?

Craig Schilling (Optum): I think it's really important and I think I'm really happy that the health-psychology approach as a global strategy, maybe, is coming to the US as a more prominent strategy, as I described before. I think, in the circles of medication adherence that I walk, there're tremendous conversations about barriers, but now we've got to go deeper than that and I think that's exactly what we're building upon here—those personal beliefs, those personal aspirations that individuals have and why they have them. That leads them to a barrier, that leads them to maybe a lack of motivation, that leads them to maybe not trust their physician on why they have that diagnosis.

And so I think the ability now to get even deeper in our understanding of members and patients around their barrier, I think it's definitely the place to go so that we can even further tailor our approach to those individuals. When I think about approaching an intervention—and we'll talk about the plural interventions vs. intervention—when I think about the member, there's like three areas. You have the tailored approach, but I think we also have to kind of do some data analyses before we get to the tailored approach, because at the end of the day, we all know the problems of medication adherence and it is a problem and it's a significant cost issue in healthcare, but when you look at it deeper, about six or seven out of every 10 individuals are doing just fine. They are taking the medications, and so then that leads people to believe that, "Oh, we just need to work on the people, that other 30 to 40 percent, and make them take care." Where people maybe don't have any insight is that there's the fluctuation between adherence and non-adherence each year, so what we've been able to ascertain is that you don't know you're adherent. You may look at the metrics around adherence and whether or not they're taking their medications, but about 30 percent of those 70 percent of people that are adherent—next year, they're going to be non-adherent. So if we work in population health management to improve population adherence, you could have leakage, if you will, of your adherent members out the back door.

Rich Daly (RavineRock Partners): Craig, can I ask you this question? One of the things that struck me is we always talk about compliance and persistence and I just kind of threw those terms around and thought when a patient is compliant, they're compliant. One of the things that I discovered is that patients may be compliant—maybe I misread this, but—they're not taking the medication appropriately while they're compliant. Is that correct, or did I misread that?

Jeffrey Weinstein (Hunterdon HealthCare Partners): Well, sometimes it's cost and so the physician prescribes the medication that should be taken twice a day and they're feeling okay. "If I go to once a day, maybe I'll still feel okay and it's going to cost me less because I'm going to make it last longer."

Rich Daly (RavineRock Partners): But I can see that as a non-compliant patient.

Jeffrey Weinstein (Hunterdon HealthCare Partners): But they think they're compliant. That's the difference. If you ask that patient, "Are you taking your medication?" the answer is yes. Now you have to ask them, "Are you taking it the way it was prescribed?"

Rich Daly (RavineRock Partners): As prescribed.

Jeffrey Weinstein (Hunterdon HealthCare Partners): And very few people ask that question.

John Hosier (Eisai): I mean that's truly adherence, right. Persistence is, "I started on day one, I finished on day 30. You told me to take it for a month." That's persistence. We fill the script. Adherence is, to your point, the way it was prescribed, the duration it was prescribed.

Rich Daly (RavineRock Partners): And I don't think there's enough discussion about it and that has a risk metric as well.

Craig Schilling (Optum): And that's where we talk about some of the measurement of adherence, getting to Proportion of Days Covered, or PDC. That's kind of the standard. So what that entails is looking at the number of days of the supply of medication that someone has on hand over a given period of time and so you can find that 50-percent-adherent individual, but they're persisting with their medications, that, "Yep, 12 months out of the year, I am 50 percent on. I am taking half of my drugs persistently." And then there are other individuals who would take 100 percent of their drug and they'll do it for the first seven months of the year, and then they reach the doughnut hole and then it comes out of their pocket and they become nonpersistent with their medication because all of a sudden, now they can't take their medication, maybe, because of cost and all of a sudden, their adherence metric—the PDC—falls off when they've been exquisitely adherent for a certain portion of the year and then because of the coverage or a benefit design issue, maybe become non-adherent and then they're looking like they're non-persistent with their medication.

Jeffrey Weinstein (Hunterdon HealthCare Partners): Yeah, as an employer, and we are the largest, other than Merck, that happens to be in our county, we're the largest employer in our county and I look at our healthcare costs and it's double the healthcare cost of commercial members that access care in our system. Healthcare employees tend to be high utilizers of healthcare cost. But we also know they're not

taking all their medications, so we're very excited as an employer of seeing how this program's going to work as we roll it out because we are going to roll it out.

Prof. John Weinman (Atlantis Health/Kings College, London): So what's interesting that you said it's about asking the right questions, and asking them early, and I think that's a key issue. It's not a question that doctors ask, interestingly enough. I recently ran some workshops in Sweden and asked a large group of doctors two things: something about what level of adherence they think their patients had, and they way overestimated what I know the true data is. But it's sort of a curious thing and there are many reasons for that, and we can look into those later.

But I also said to them, "Imagine you have a patient, a new patient comes to you, you diagnose them with arthritis, you put them on the

first-line treatment and they come back and see you in three months, six months later, like that, and they're worse, more joint pain. What's your first thought? "Well, up the dose," not "Are they taking the medicines?" So that question is just not in many physicians' heads, and given the prevalence of the problem, it ought to be. We ought to be able to anticipate, and you're exactly right, it's about getting in early and understanding what's going on. We should be able to anticipate and know something about it and I think that's what some of the theory does. We can measure really well early on. We can identify people we know are going to be less likely for a whole range of reasons, but asking those questions and getting people to ask the questions very early on is a key issue.

John Hosier (Eisai): So where do you ask the questions? How long is the average physician–patient visit? Forget about the nurse time, just the actual physician visit itself.

Jeffrey Weinstein (Hunterdon HealthCare Partners): Ten to 15 minutes.

John Hosier (Eisai): Ten to 15 minutes. So this means maybe you squeeze another minute at the beginning of it where you're asking the history and learning the background.

Jeffrey Weinstein (Hunterdon HealthCare Partners): Correct.

John Hosier (Eisai): Yeah, now we've added probably another doorknob question as you're trying to move on to the next patient.

Jeffrey Weinstein (Hunterdon HealthCare Partners): Which is why I said with the Pharm.D., when we were able to embed those in a couple of our sites, it makes a significant difference, but it's not a cost that people are willing to look at covering.

Craig Schilling (Optum): It's a good investment, though. It is. It's an education of the healthcare team.

Jeffrey Weinstein (Hunterdon HealthCare Partners): Correct.

Rich Daly (RavineRock Partners): The provider is a good quarterback and they do need to supplant that strategy into their healthcare team.

Jeffrey Weinstein (Hunterdon HealthCare Partners): Correct.

Craig Schilling (Optum): But again, getting back to kind of the conversation and how do we have that conversation with a member, some of the analytics that we're talking about here. So I mentioned that people that are adherent, 30 percent of them are going to be at risk to become non-adherent in the future. So think about that conversation. If a patient comes into your office and they're taking their medications 85 percent of the time, but we have the insight to know that they're going to become non-adherent because there are certain medical and pharmacy historical factors in their record that say, "You know what? You're fitting into the mold of someone who's going to start to fall here." So think about that conversation.

You can't talk about the future to that one and accuse them of being non-adherent in the future. What you have to do to that member is congratulate them, motivate them around, "You're doing extremely well. You realize that maybe now we've added three medications to your regimen over the past three months." The complexity is increasing. Motivation and getting at maybe some things that make them feel well will help prevent that falling into the non-adherence.

Prof. John Weinman (Atlantis Health/Kings College, London): You also have to address what are a very common set of beliefs that people have. It's that when they're doing well, particularly with some of the stronger treatments there are, they start to become symptom-free, and what people do is use symptoms as a guide. They haven't seen any need for medicines.

John Hosier (Eisai): Or side effects.

Prof. John Weinman (Atlantis Healthcare/Kings College, London): Yes, or side effects coming out the other side. Yes, so they're using either lack of symptoms, or side effects, and we know two of the strongest beliefs that patients have that can affect their treatment-taking are around that, so good medication-taking behavior can suddenly sort of run out of steam because people's perceptions change dramatically.

Jeffrey Weinstein (Hunterdon HealthCare Partners): I just did it. I was on chronic medication for years. Feeling great, and I thought, "This is just stupid. I don't want to take it anymore. It's a waste of money. The doctor wants me to come back for a visit because he won't renew the script, so I'll just stop." Thirty days later, I went back on it because I wasn't feeling good!

Craig Schilling (Optum): And that's where…Marc's opening statement about cancer. We have made tremendous progress with oncology therapy, and I come from the pharmaceutical industry and I come from Novartis where maybe one of the most satisfying stories in oncology exists and that's the treatment of CML, right, with Gleevec. And so here you have a situation where primary survival is in the five percent range 10 or 15 years ago and now it's in the 95 percent range and so almost a complete turnaround. So that brings different issues now because now you have chronic cancer patients. They're not all just acute that are living for six to 12 months, and so we look at adherence to oral CML agents and so you would think that here's a medication that is saving my life. You have to continue to take that medication. You don't want to go back into it, so here's a medication that's saving my life. And what we found was about 65 percent of those individuals are exquisitely adherent, 98 plus percent on their medication adherence. The other third are taking the medications about 79 percent of the time. How do you explain that? I mean it's not just the chronic, it's the asymptomatic . . .

John Hosier (Eisai): Yes, it's the same thing with organ transplant. Three hundred thousand dollars for a new lung, and I stop taking my CellCept or whatever you're on . . . and reject the organ.

Marc Iskowitz (*MM&M*): So health psychology might help us to be more proactive in addressing some of the barriers that impact compliance or persistence. Why hasn't this approach caught on in this country yet, for the most part?

Craig Schilling (Optum): I think it's, as I mentioned earlier, we've just turned a corner maybe five or 10 years ago and are focusing in on the intervention. And I think the buzz has been around barriers and forgetfulness and literacy and cost and motivation. Everyone gets that now, and it's gotten us to a certain point because we have become a little bit more individualized. But now I think we're just now at a point where we can peel that onion one layer further and get a little bit deeper into the why associated with the barrier. I don't think we'll ever find the magic bullet, but maybe we'll get closer.

John Hosier (Eisai): If you talk about your Pharm.D. counseling patients with Oncolytics, now forget about hanging a bag for a moment, but when you send them home with a script or they're getting the medication through specialty pharmacy, an option that exists for that, we'd have a nurse call at the end of the month and ask, "How many syringes do you have left?" or, "How many pills are left if the bottle? Have you missed any doses? Are you ready for the next script?" You've got to ask the question five different ways to get an accurate answer. If you know I didn't miss any doses and there're three days of therapy left but I've got seven pills in the bottle, it's not adding up. Something got missed somewhere, right? But that often exists there and it works there. It's difficult to pull that over to primary care product and difficult to pull that over to other disease states.

Marc Iskowitz (*MM&M*): Marketers would call these opportunities touch points with the patient. You've got to take advantage of every opportunity you have, whether it's on the phone or at the point of care with the doctor.

Craig Schilling (Optum): It's to Jeff's point about the tolerance to invest in this situation because what you're describing there, John, is a very high-touch approach, in which there's high touch, there's moderate touch, there's low touch, there's an automated message over the phone—very low touch. We have models, we actually, in some of our programs, we utilize Pharm.D.'s going into the home for a 60-minute dialogue with a member. Terribly expensive, as you might imagine, but with our targeting, we can identify the right homes to go into, if you will, but again, there're so many costs associated with the actual interventions and that's where I think we're starting to see with some of the star ratings and the drug categories that people are focused on in Medicare Advantage, you're starting to see that, "Well, if we put an investment into this, if we really take the time to address these issues, intervene in the appropriate way from adding in some deeper layers of health psychology, I think we're going to see that value, that investment, the return on that investment, whether it be clinical outcomes, better health economic outcomes or, for CMS, better star ratings.

Jeffrey Weinstein (Hunterdon HealthCare Partners): As providers, I'm going to use the analogy, the picture of the guy with a foot in two different canoes, but the reality is that's where we're at. Now, as we moved to value-based reimbursement, we want to do more and more of the right thing. Well, we want to do them anyhow, and we have a 15-year history of doing that, but the reality is most of our revenue still comes from fee-for-service, churning the patients, seeing the patients, getting on to the next patient, and no one's paying us to do the right thing. Some payers are. In some cases, we're receiving additional dollars that we've been able to pour back in, whether it's hiring care coordinators, whether it's making sure that all of our providers

are on one common Electronic Medical Record, which is unusual, so we've got a group of independent-plus employed physicians on one common EMR, so we've got data. We're not necessarily using it the best way yet, but we've got a lot of data, and that's where we have put these extra dollars. But we're going to get to the point where I think more and more of the fee for service is going to go away and that's when providers will realize it's a real opportunity to spend the extra five or 10 minutes with the patient.

John Hosier (Eisai): How much catch-up has to happen, though? So the usual schedule doesn't cover a lot of the counseling you guys are doing and . . .

Jeffrey Weinstein (Hunterdon HealthCare Partners): It does not cover it.

John Hosier (Eisai): We've got a long way to go yet before your start to get credit for all the work that's actually happening.

Jeffrey Weinstein (Hunterdon HealthCare Partners): Correct.

John Hosier (Eisai): Yeah. And then all of the work that should be happening.

"All four—patient, payer, pharma and pharmacist—could participate and all four benefit from it"

—Rich Daly, RavineRock Partners

Rich Daly (RavineRock Partners): As far as ACA, are pharmacists coming in reimbursed for patient counseling?

Jeffrey Weinstein (Hunterdon HealthCare Partners): Pharmacists can be reimbursed for it now.

Rich Daly (RavineRock Partners): I mean, not the Walgreen pharmacists.

Jeffrey Weinstein (Hunterdon HealthCare Partners): They can be.

Craig Schilling (Optum): In certain states they are.

Jeffrey Weinstein (Hunterdon HealthCare Partners): They are. They can come and say they can absolutely do it. The problem that we've got is the patient doesn't want to come back twice, so I can't have them seeing a pharmacist and a physician on the same day. We're only going to get paid for one provider, and the pharmacist is going to be the lower reimbursement.

Rich Daly (RavineRock Partners): So they're creating a medication therapy plan, a medication management plan, right? So you write the prescription and—so Walgreens is doing this thing where they have—and CVS has basically done the same thing—where they actually have the pharmacist sit out front in some of their experimental stores. There's one in the Chicago area, but they're all around the country. The pharmacist sits out front, and her desk is literally in front of the counter and you come in, and there have been actually some lawsuits on this that it's too public. If you're sitting there, then you're violating HIPAA now, so Walgreen's has some issues with it, I've read in the press.

But if you can actually say, "Well, here's your prescription. Go there." If Walgreens can create a business model where they actually write a medical-management plan or work with the patient, there's an opportunity, because if you think about the four players in this—I'm trying to think of who the players are in this—I'm thinking the patient, obviously, the payer, pharma, and the pharmacist, and so this is kind of trite but greatness is found at the intersection of the common good, and I think one of the reasons why it works in Europe is because it's the same way. There's one place to go, generally, for it, and there's somebody paying the bill. Here, if somebody leaves your system, they could go somewhere else. There's a reluctance to invest longer term generally across the board, but if you look at it and say, "Okay, who benefits from this?"—all four of those parties benefit from this—and you could go and say, "Let's create them again." I hate to use that term again, but "ecosystem": All four could participate and all garner benefit from it. Patients, it improves their care, they create ownership, as you said before, John. The payer gets better outcomes, which is what you're looking for. The pharmaceutical company gets better business, and then the pharmacy actually has greater churn at their counter, which is what they want, so that business, the pharmacist is the most trusted individual in the entire system.

Craig Schilling (Optum): CMS is starting to drive that, not as a single payer, but as a large payer for Medicare members and now with Obamacare and the health insurance exchanges and all of the quality metrics that are going into evaluating the care that's being delivered and that's driving, so it's driving quality up. It's like for CMS and Medicare Advantage, there's 48 different measures that anyone that is providing care for Medicare Advantage members, if they want to be reimbursed for that care by CMS, they've got to meet certain star quality metrics and so that old star rating system is starting to drive a little bit more of the collaboration . . .

Rich Daly (RavineRock Partners): I just want to be clear: I'm not advocating for a single-payer system. I'm just saying—Marc, you asked the question, Why is it there and not here? That could be a reason. It could be a reason.

Marc Iskowitz (*MM&M*): Right.

Rich Daly (RavineRock Partners): But I think there's a way to bring this together and say, "Hey, there's a mutual benefit for people and for good actors to come together," because as pharmaceutical people, we can't see the data on individualized patients. As a plan writer, you can. You have the data that you can see. You have the tools. Professor, you have the tools that we don't have.

Prof. John Weinman (Atlantis Health/Kings College, London): Yes.

Rich Daly (RavineRock Partners): And you can work with individual players to provide those tools.

Prof. John Weinman (Atlantis Health/Kings College, London): As well, I thought what was interesting about your question was you were saying why hasn't this approach, this broader looking for the whys approach,

maybe taken off as quickly over here because there is evidence. There are some good studies and some good interventional work here in bits and pieces. And quite rightly, people have identified this whole system, their healthcare system issues, which may be mitigating it. I think also, health psychology is in a slightly different place in the US. And we have training tracks for health psychologists picked up in the UK in their master's programs and doctoral programs purely to develop health psychology practitioners to go out and work with healthcare providers in a whole range of scales in the clinical setting. So in a way, it was set up structurally and maybe in terms of our discipline will work in a different way and health psychology over here. I think health psychologists are maybe not—they either come through clinical psychology and then work in the mental health area, in that model, or they're coming through a sort of public health training. There is no training, a master's type training, over here and I expect that eventually that will change.

Marc Iskowitz (*MM&M*): So it's another challenge to the uptake of this.

Prof. John Weinman (Atlantis Healthcare/Kings College, London): Yeah, it's a slightly different beast over here. I mean there's some wonderful work. There's the best health psychology journal here.

Craig Schilling (Optum): And I think, to the body of work, I think that's where we've got to go to the next step to really having a broader adoption of this approach. I live it every day as I go out and try to build medication-adherence programs and quite frankly, sell medication-adherence programs to payers, and the scrutiny around the dollar that's going to be spent to do any of this is significant. So at the end of the day, data talks, results talk, outcomes talk and this is an opportunity where if we have experience with the health-psychology approach, even if it's not in the US as much, we've got to bring that data in. We've got to bring that evidence in so that the confidence level of the key stakeholders and decision makers that are going to do that investing in a new approach feel confident and comfortable about doing that, and you're going to have to demonstrate it to those payers so that the masses of population health can appreciate a new approach.

Jeffrey Weinstein (Hunterdon HealthCare Partners): And the payers have to buy into the fact that maybe this individual's on my plan this year but is not going to be on it next year, but maybe I'm going to pick up somebody from another plan that was already doing this and that's what's got to happen.

Rich Daly (RavineRock Partners): Like statins years ago.

John Hosier (Eisai): If the life cycle of my patient's five years before they get to the next plan, then why am I going to worry about what happens to him in 16 years?

Rich Daly (RavineRock Partners): "Why should I do that?" That's a classic example and we've got to go with that, otherwise, nothing good's going to happen.

John Hosier (Eisai): That's exactly where I was going to go when you said that your patient moves into another system. In today's world right now, you still get dinged, right? You're going to get dinged because they moved off, if they're not complying, if it hits your ratings.

Marc Iskowitz (*MM&M*): And then I'm sure you're grappling with

this: The payers, they're probably asking for more data to prove value for money. But the claims-based data has its weaknesses and so now real-world evidence is starting to come into the picture, but the real-world evidence won't help you unless you address the adherence issue.

John Hosier (Eisai): Well, we can't really see all the issues even in some of that claims data. I can buy the data. I can see fill rates. I can see rejections. I can see reversals but what I can't see is what happens when the patient walks in with a script the pharmacist has seen 15 times and before it even gets entered in his system or it's dropped in the bag for pickup, the pharmacist says, "Oh, by the way, it's 80 dollars, it costs you 104 dollars, are you sure you want this." It never gets put into the system, so I never see that that patient got lost.

Marc Iskowitz (*MM&M*): Is that what's called "abandonment"?

John Hosier (Eisai): Well, abandonment is defined differently. Abandonment is, script gets filled, product goes into the bag, it sits in the little bin, and the patient never comes back, so they put it back on the shelf.

Craig Schilling (Optum): So primary medication non-adherence is up to as high as 30 percent. You know, with electronic prescribing, it only seems to be getting higher. So now, there are . . . it's an efficient process for the physician to prescribe electronically and it just goes right to the pharmacy. There's no guarantee that Jane or John Doe is going to make it there.

Jeffrey Weinstein (Hunterdon HealthCare Partners): And I just had it happen. I went to my local chain pharmacy to fill a script, and the kid working the counter said, "You know what this costs?"

Marc Iskowitz (*MM&M*): Wait, but I may want the brand because, although it's more expensive, I get an adherence plan with it, I get some services wrapped around it.

John Hosier (Eisai): Well, that goes into value-based cost, which is a great discussion to have.

Marc Iskowitz (*MM&M*): That's another discussion.

John Hosier (Eisai): Yeah. And whether you're for or against brands vs. generics, it's amazing the amount of conversation around that.

Jeffrey Weinstein (Hunterdon HealthCare Partners): It's America. Yeah. This is a generic.

John Hosier (Eisai): The mind-set is, "A $20 co-pay vs. a $4 co-pay, I'm not going to spend the extra $16. It's not worth it to me"—while you're holding a $5 cup of coffee.

Jeffrey Weinstein (Hunterdon HealthCare Partners): More and more, patients are on high-deductible plans and it's first dollar from the deductible even on the pharmacy side. And that makes a difference.

Marc Iskowitz (*MM&M*): To John's point, that's like the typical op-ed in our magazine. Why do patients opt for that $5 cup of coffee but balk at a $16 co-pay. But to be fair, with biologics, the co-pay can be a lot higher.

Craig Schilling (Optum): It goes back to the original conversation in the office with the healthcare team because they haven't prepared you for that conversation that you may have with a technician that just made a cost-barrier statement. If you don't know how to combat that situation with an understanding of your condition and the consequences of your condition, etc., etc., you're not going to pick up that script.

Rich Daly (RavineRock Partners): Professor, you had something I think I read about, three parts: motivation, capability and opportunity.

Prof. John Weinman (Atlantis Health/Kings College, London): Yes.

John Hosier (Eisai): I don't understand. Could you explain those, because I get the motivation. Capability I'm a little sketchy on, but then the opportunity, I'm not sure if this fits into the bucket of opportunity or what we're talking about.

Prof. John Weinman (Atlantis Health/Kings College, London): Sure. This is a model or framework that we have for explaining what we think are all the key drivers of non-adherence, and it sort of arises from work that had gone on for a number of years where people said there were two types of drivers of non-adherence—intentional and unintentional, the intentional being you definitely know you don't want to do it for all sorts of reasons—don't believe in it or whatever, all the things we've been talking about. The unintentional being the forgetting and all those things that get in the way. And that distinction started to look very shaky to us, reason number one. And also, just understanding the drivers of non-adherence doesn't tell you what to do. They're just drivers, so we very much looked to a movement that's been going on in the UK in the last five years around developing effective behavior-change interventions right across the board, not just around adherence, but around any health behavior. And what they've done is they've developed this model—this capability, opportunity, motivation model—and it's identifying the three main drivers of health behavior as the basis for determining what sort of intervention to put in place.

And they talk about a wheel, a behavior-change wheel. The inner part of the wheel is the explanations of non-adherence and they divide it up, so the capability ones are really essentially two types of capabilities—psychological capability—can you trust the person to have a planning ability? Can they remember? Do they have the health literacy? and so on. There's also physical capability—are they actually able to get out? Can they open the bottle top? Can they press their inhaler? You know, those things. We shouldn't underestimate some of those things. So there are capability factors. They're not the biggies, but they're important.

Then there's the opportunity. Opportunities are all the things outside the patient. So, it could be, again, access to healthcare, it could be a lot of things you're all talking about, some of the financial issues getting in the way of people maybe being able to take up medicines. But they are all saying things like the role of the healthcare provider. They may not have those sorts of conversations. They may not encourage the patients to really understand the meaning of their treatment.

It could be their meager social supports. I mean, social support is very important, particularly around some of those areas that I talked about earlier when we were looking at the model with the carer, and people with a whole range of vulnerable conditions.

And then, the biggest part of the piece for us is the motivation, and motivation is at two levels. One is conscious motivation, and conscious motivation is ability, essentially. So this is where somebody's saying, "Well, okay, my symptoms have gone away. I don't think I need this treatment anymore," so there's the belief that you don't need the treatment if you don't have symptoms. Or the issue that you picked up, "I was feeling okay, but they tell me I have to take this treatment because I might get a stroke eventually. But I'm getting these horrible side effects and I don't like it," so there are concerns about some of the effects of the treatments. There could be very strong beliefs that you develop about the treatment that lead you to become demotivated to take the treatment.

Or it could be you have very specific feelings about your illness. For example, asthma, where we talked about asthma earlier. For patients with moderate or severe asthma, the recommendation is that they take the preventive medication every day. They don't have symptoms every day, so they think—and we've shown it in large-scale models—you say to patients with asthma, "So what if you don't have symptoms? Do you have asthma." "No. No, I'm fine." So again, you're not motivated to do anything, if you're fine. If you're not ill, you don't perceive yourself to be ill.

So the motivation can be at that level, that conscious belief that you can interrogate people about and identify and challenge and change with interventions. Or there are also these more automatic types of motivation, in which a lot of people are talking about now. Some of them have to do with mood and we know that when people are, for example, people with major health problems are depressed, they are less motivated to do things for themselves including medication-taking. Depression is a risk factor, so if you have people with rheumatoid arthritis who are depressed, they are less adherent than the non-depressed patient, and it's part of that demotivational process that begins with depression.

So it's not necessarily causing conscious changes in belief, but it's just at that rather-automatic level affecting the level of engagement and motivation. And there are also these other sorts of rather-rapid, automatic processes that a lot of people are very interested in now. The fast-thinking processes, the hunches, the gut feelings, the things that come under this broad heading of automatics. They're all these very rapid processes, and people are just beginning to get interested in those in the adherence arena. People have sort of gut feelings about, "This is right for me." Or, "It's not right for me," and those are automatic, and they're clearly motivational. They're influencing your willingness to engage in something. So to come back to your question, we now have three broad types of factors but within each factor we have a whole range of a sort of subfactors, so the plot thickens and there's a lot there.

Rich Daly (RavineRock Partners): The reason why I asked the question is because if you're a healthcare practitioner and you're sitting with a patient, it's a little bit like the market research we do. We ask a physician, "Why do you do what you do?" They'll tell us, but that's a stated answer. To really get to the reason why they do something, you have to ask, you have to derive the answer and so that's the automatic stuff. They'll tell you why they do stuff. They don't sometimes know. So the classic, "Why do you pick the car you pick?" and you say, "Well, because it's safe." And then you sort of say, "Okay, the safest car is the Saab," or whatever. You could say, "I'm not driving that. I'm driving this over here." And then you get to the driving answer. How do you—through the healthcare practitioner and the patient in an office—get to that, or how do you—through this data—get to the derived answers to get to the true motivation of why they're not taking their medication? Is it Big Data?

Prof. John Weinman (Atlantis Healthcare/Kings College, London): No, I was going to say some of the programs I've been involved in and some of the ones that are out there commercially now, the really good programs have good patient assessment. The key to this is early assessment, where in your assessment battery it can't be too long because you try to cover off all those main areas and you get at issues like planning ability, forgetfulness, as well as the idea you really need to be taking this treatment all the time and so on, and so a really good baseline assessment is the key. It's the key to personalizing intervention. Well, it's the key to identifying for you and for you and for you, what are the drivers of your non-adherence and it's also the key to having them deliver intervention because you target those things. And the physician doesn't have to do that. So we've had interventions where patients fill out brief screeners prior to being seen.

John Hosier (Eisai): So can you save everybody, or do you use the assessment to find the motivated patient, the patient that's bound to be successful?

Prof. John Weinman (Atlantis Health/Kings College, London) That's a tricky one. Who, you know. And that, in a sense, is a judgment call, I think, on what you're willing to pay for. I think, theoretically, you can save everybody. I believe that. I believe that, potentially, behavior is changeable. But clearly some people are much more stubborn than others, and some people have some really—again with this automatic stuff—some people have some really strong ingrained beliefs against medicines in general, and we certainly showed that in some of our early work. We know that people have beliefs about this medicine, that medicine, that other medicine. People also have very generic beliefs about medicines in general.

Rich Daly (RavineRock Partners): We prefer the word "universal" as opposed to "generic."

Prof. John Weinman (Atlantis Healthcare/Kings College, London): Oh, okay. Universal beliefs. Sorry, I used the "G" word.

Craig Schilling (Optum): Unfortunately, I have a little bit of a conflict here. I think that we're focusing a little bit on tactics. This is not, it can't be just a tactic with our patients or our members. We can't look for the one conversation, the one assessment that has to happen when you talk about interventions. I haven't had my opportunity to talk

about why that plural vs. singular is so important because, again, it goes back to what you talked about: deep-seated beliefs. And it takes time, and it takes relationships with your patients, too. Going into an office for 10 minutes, standing at a pharmacy counter for two minutes, picking up a phone for five minutes—not one of those interventions in singularity is going to do anything.

Even a 60-minute visit by a Pharm.D. in your home may not dethrone that belief, so it's about a relationship and it's about getting these systems in place. To your point earlier about getting all of the team players involved in the effort so that you're not just, it's not a one-size-fits-all. It's not a one conversation. It's repeated interactions, consistent education. It's consistent contact and it's a relationship that puts the patient in the center and what the patient's aspirations are, what the patient's beliefs are—not about what I want to do as a healthcare practitioner to change my quality rating so that you're taking your medication. So those are just some things that I think we have to keep in perspective.

Prof. John Weinman (Atlantis Healthcare/Kings College, London): I completely agree with you. When I talked about an assessment, I was talking about something at a very early stage that gives us a bit of a map for that person: Where are we going to go with their interventions? But this stuff isn't easy. It does take time. Behavior is often quite hard to change. If you look about the behaviors you've all tried to change, it's not straightforward. And also, what we do know is that you need to repeat assessments over time because things change for people. People may suddenly get something, but they lose something else. So it's that really looking over time. It's a very dynamic set of changes that can occur.

"Today we're looking at how are we making sure that patients are actually taking their medications"

—Jeffrey Weinstein, Hunterdon HealthCare Partners

Rich Daly (RavineRock Partners): So, Craig, of all the parties at this table and beyond this table, who's in charge in that relationship?

Craig Schilling (Optum): I think that the physician is a fantastic quarterback. Are they in charge of the relationship? I think it's an accountability across all the different settings.

Rich Daly (RavineRock Partners): Is it the ACO? Because they're the ones sitting there saying . . . if and when the ACO becomes the ACO and they are, to what John said before, to the pharmacy budgets and medical . . . if that all comes to fruition as it should and it finally sits in one place, to me, that would seem to be the logical place.

Craig Schilling (Optum): Or you go to the patient and you ask the patient who's in charge and where does their belief system come from. When I talk to my pharmacist, he is or she is who I listen to. That's who I know I can get all my knowledge from, and somebody else may say, "You know what? The person that's in charge is my dad. It's my husband. It's my spouse, because what they say, I really trust." And so I think it's dynamic and you've got to get to where did the belief come from, all those different touch points in the healthcare system, whether it be with a professional or a loved one or a family member.

Jeffrey Weinstein (Hunterdon HealthCare Partners): As an ACO, we're responsible to identify where these opportunities in the population are, but it's still the provider who has to have that touch. We're not practicing medicine, but we're making them aware of where there's opportunities maybe on an individual patient and sometimes for a population as a whole.

Marc Iskowitz (*MM&M*): John, did you want to respond to Rich's question?

John Hosier (Eisai): Yeah, well, I don't know. I think maybe I challenge the notion that it resides with any one person.

Because Aetna, as a payer, defines what they want that relationship with members to look like and they define what good looks like for them. It's going to be different than Cigna and Medical Mutual and Medicare and everyone else. ACOs will certainly do that, and I'll try to solve individual adherence problems for my drugs in my therapeutic areas, but there's going to be three others that that same patient is on that another company has to deal with. We're not going to change it, I think, until we all figure out how to all define for the patient what quality needs to look like, what the value of taking care of their healthcare looks like. And solving the adherence issue out of an individual product level, therapeutic level, member level—it has to be a total change, otherwise it won't be successful.

Marc Iskowitz (*MM&M*): Everybody's got to get together to solve this problem. Now, diabetes has been a therapeutic area where we've seen different pilots. What do you think would happen if we used diabetes as a test case for the health-psychology approach? Would knowing the beliefs driving patient behavior lead to better self-managements of patients taking their diabetes medicine? Rich?

Rich Daly (RavineRock Partners): I think it's a great question. There are data that show that patients who are compliant in some of these rather-simplistic programs, their cost to the system is less than half. The cost for patients who are not compliant, and their total annual cost is less than half. And that's I think before we get to what's truly driving their behavior, and if you could get really at the crux of that, could we get more people into that bucket.

This is a slow and insidious disease, right? Ninety-five percent of the patients are type IIs. It's a lifestyle disease, for all intents and purposes, so trying to change somebody's lifestyle—I think we all know that's the first form of treatment and that generally doesn't bear a lot of fruit for the long term, although it's the first thing that physicians and healthcare practitioners try.

So, you look at it and you say, "Hey, if we could get into it, it would be great." But we are doing a scattershot approach right now. We are doing the reminders stapled to the bag, the phone calls to the patient. Every single company who's in diabetes right now has a field force that works with clinicians—whether they be physicians, nurse practitioners or PAs—to help educate the patients, and they will actually spend time with the patients once they're diagnosed and put on therapy.

The company I worked with, we actually went out once a patient was diagnosed at week one, week four, week eight and week 12, and we talked about the disease state. And that was up to the clinician whether or not the patient got enrolled. The patient had to opt in. And we talked about nothing but the disease state. No drugs were talked

about. We didn't make a recommendation, or I shouldn't say we, the nurse practitioner or certified diabetes educator. So it was about the relationship and creating trust between a healthcare practitioner, a certified diabetes educator who was also a nurse practitioner and the patient and making sure they understood what was going on.

There have to be advances. The program is too early. It's too early to tell. We didn't use any of the tools that you're talking about. That's why I'm so interested in them because I think it could further advance it. If you really understood what was motivating that patient or demotivating that patient and you could get to the crux of that in week one, I think that would be tremendously useful. I think the pain states would be also. Patients who are in pain states, are they taking their medications? Do they have opioid rescue therapy? They have to have opioid rescue therapy now with them at all times, and many of those prescriptions don't get filled.

John Hosier (Eisai): It's just a different process, I guess, an individual with diabetes, thinking that patients aren't motivated. I mean the stakes are pretty high. You can go blind, you can lose a limb—we're going to take your foot if you're not compliant. And [yet] we still have a tremendous . . .

Craig Schilling (Optum): Years and years and years down the road, though.

Prof. John Weinman (Atlantis Health/Kings College, London): What's interesting is, and this comes back to the issue raised about multiple touch points and multiple opportunities, I just recently published a study with some colleagues in Australia looking at routine diabetic eye screening as an opportunity for increasing motivation and improving self-management. And we just find kind of, well, we did two studies.

We did one where we just took a whole lot of patients who went for their routine eye check, and we didn't understand why or how they're having an eye check. It was just sort of part of the deal. So there was a lack of understanding about the link between diabetes and eyes—how can that work—so that's a limited sort of the understanding that a lot of patients seem to have. But when we introduced something very simple, which was to show patients their own eye screens—so they actually saw the retinograms and they saw what a healthy retinogram looked like and theirs with just incipient damage—and then we said to them, "That damage comes clear because of your poor . . . It affects different parts of your body including the blood vessels in your eyes and so on." So number three, we introduced some sort of threatening information, so all of a sudden it's, "What? I'm vulnerable?"

If you just do that, patients get scared and they head off to the hills, you know? But actually we said that, "The good news is that's reversible, that early eye damage is reversible. If you get your HbA1Cs back in a range, that damage can just go away. If you get your A1Cs back in range, that damage can just go away." That's incredibly—some got a particular belief they have about invulnerability—all of a sudden, they see themselves as vulnerable and they also see there's something they can do, so that combination of threat and efficacy is a very powerful intervention at that particular time, and so on and so on. So there are opportunities. It may be very early on, the blindness issue, for some people, it speaks to them, but to some people it doesn't and so opportunistically, some interventions can take place at very specific times and work. That was a very small-cost intervention with a powerful effect.

Rich Daly (RavineRock Partners): Well, type I used to be very complex. We had to titrate your insulin, we had to do this. Today, type II is more complex than type I. The polypharmacy that goes on—you're on metformin, you're on this, you're on—and now, in all the different modalities of treatment: This one helps you get rid of the sugar through your urine, this one helps the liver work, this one helps the pancreas. Patients are sitting there saying, "I don't know what these drugs do and I'm don't feel any worse—I know I'm sicker today than I was 10 years ago—but I actually don't feel any worse than I did yesterday, so, you know what?"

Craig Schilling (Optum): Jeff, I wanted to ask you a question about . . . leading back to the previous question from Marc to Richard around in diabetes and the opportunity to maybe integrate this health-psychology type of approach. And you talked about your patient-centered medical homes that you've kind of put into operation. Can you see it playing there?

Jeffrey Weinstein (Hunterdon HealthCare Partners): We've already been working in that space. We have one of the oldest diabetic education programs in our state. We actually have seven full-time endocrinologists in our county, for a small county of 120, and it's not because we have a vast amount of disease. I mean, we do have disease, but we actually serve far beyond our county, and so we've been in this space and working with patients in patient-centered medical homes and the care coordinators and working very closely back to the diabetic educators, so as we identify the patients, getting them to that service, not just seeing the doctor.

Rich Daly (RavineRock Partners): That's great. I think one of the real great opportunities here is there are companies that are actually putting sensors into the tablets, so if there's a ping if you take your tablet, you can check whether or not the patient actually opened the bottle and all that's interesting, but you wear a patch on your arm and there's a sensor in the drug that can actually take your blood pressure,

take your body temp, and it relays it to your phone and you can relay it to your father's phone, your wife's phone and it can says, "Hey, Rich didn't take his drug today." Imagine marrying that with your data?

Take your data about who is compliant and who is not compliant and now you're actually going to follow along and say, "Are they taking that? What time of the day are they taking it?" And now you can get, I think, some really tremendous insights. How can we get real great insights there, too? But I just think people—you can really remind them all the time, but until you have that great relationship with them, which I think is the key thing, I don't think they see the need.

John Hosier (Eisai): That comes back to tactics again. If you'll indulge me for 60 seconds, we were at Google—and I think it was a Novartis partnership, actually—we talked about Google X has a contact lens that they're looking at with a computer chip in it, and it's going to

measure sugar levels, your saline, and if you need a dose, it's going to blink bright red to remind you to take your, whatever drug you're on. Sounds great. It's exciting. Can't wait to see what they're going to apply with other medications. But I remember getting pitched from a company that had an RFID tag that had sat inside a pill lid. There's apparently a lid to go on top of the bottle, so every 24 hours, the lid has to move and open up, otherwise it's going to blink and beep. That's how they're going to remind you to take your medication.

We talked to a handful of people who had tried it. How did it work? They said, "Well, it kept blinking and beeping, so I disconnected it and that caused it to stop." "Why didn't you just swallow the pill? You already were, you were within inches of it. Something had your hands on it—you had your hands on it!" There's just something—certain people are wired differently.

Rich Daly (RavineRock Partners): I think in diabetes because—and having worked in a lot of symptomatic and asymptomatic states that are lifestyle-related—there's a tremendous amount of guilt and people feel like, "I did this to myself," and they are symptomatic. GERD is a great example, gastroesophageal reflux disease. If you go and talk to the patients, you'll say, "Well, here's a drug you should take for this. It'll make you feel better." "Oh, I did it to myself. Gout. It's my fault. I should feel the pain," and you're just blown away by this. "Well, here's something that can make you feel better." "It's my fault, I ate . . ."

Prof. John Weinman (Atlantis Health/Kings College, London): It's interesting. Generally, if people believe they are the cause of the problem, they're actually more likely to change. It depends on what's the cause.

Rich Daly (RavineRock Partners): Interesting.

Prof. John Weinman (Atlantis Health/Kings College, London): It sort of depends what aspect. If they say, "It's my fault, and I'm just a useless person because I'm . . ." And also what we call "characterological self-blame." You know, "It's about me. I'm rubbish," then they probably won't change, because, "I'm always going to be rubbish." If they say, "It was me. I didn't pay attention at the time. I should have been more diligent about this"—so it's more behavioral—if they say, "It's my behavior," they're actually more apt to change that behavior. And we've seen that very strongly in patients after a heart attack. If you look at who changes lifestyle, it's the people who blame the heart attack on their lifestyle. People who say, "It's because it's in my genes," or whatever, well, they do much less. So those causal links are quite a powerful source of beliefs in drug and behavioral motivation.

Rich Daly (RavineRock Partners): Well, to answer your question, we spent a lot of money on all these nonrelationship kinds of things and they didn't really move the curve, so the companies that move to very expensive field-force relationship with patients, driven by the healthcare practitioner making the decision, this is a person I want this field force, this healthcare professional that you are providing, to have a relationship with. Please have a relationship with them because I don't have that. So let's see if we can change their behavior that way.

Craig Schilling (Optum): So maybe a question on how do we scale this? I know that when you get to the grass roots of actually implementing services and interventions to try to improve medication adherence, and again, it's a team approach, so whether you're the nurse practitioner, whether you're the pharmacist, whether you're the physician, whether you're the caregiver. How do we somehow integrate this new approach? Because it's one thing to say, "Have a relationship," it's one thing to, you know we've had to train a lot of people about how to even assess what a barrier it is or the right questions to get at a barrier, and now we're talking about going deeper.

The place where we definitely need to go is related to personal beliefs. How does the physician know how to do that? How does a nurse know how to do that? How does the pharmacist? You've got to train them. How do we scale this so it can mean something and we can actually bring it in this country and have it work?

Jeffrey Weinstein (Hunterdon HealthCare Partners): Well, you also have to cross-train, so because we're all on one EMR, all our physicians with a primary specialty get to see all of the medications a patient is on. Yet how often does a cardiologist say, "I see you're on medication for asthma. Are you taking it?" Or, "You're a diabetic. Are you taking that medication?" They assume somebody else is doing

it. Yet they might be seeing a cardiologist three or four times a year and the primary care only once.

Craig Schilling (Optum): But I'm not even thinking—your physician doesn't even need—I mean they do, they need access to the data. But it's a conversation. It's getting to the relationship, having the right kind of conversation to build the relationship, and also get at some of these personal beliefs. Then we can know how to help that individual overcome their concerns, their issues.

Prof. John Weinman (Atlantis Health/Kings College, London): It doesn't have to be people-based. There are other ways now of working with patients, Web-based and so on, where those systems can work with patients, reach out to patients, engage patients, all of their challenges around their beliefs, can help them make plans for medicine-taking and so on. And some of the systems that I've been involved in helping design. So what you need is the committed physician to say, "Okay, I'd like to involve you in this program," to know about what that program's doing, then the program itself that provides a continuous point of contact with the patient. Because the problem is—you all raised it—the problem's with the healthcare system, of time and so on. So I do think we do need to start thinking differently about how we can embed these sorts of health-psychology projects, which we can do within very different sorts of programs that may not need that much human contact, and so on. So I think we need to think a bit more laterally about what we can do. We're not limited by . . .

Craig Schilling (Optum): Technology, yeah.

Marc Iskowitz (*MM&M*): So we can integrate this approach into technology. It doesn't have to be a person delivering that educational cue.

Prof. John Weinman (Atlantis Healthcare/Kings College, London): Yeah. You know, I've certainly been involved in developing some of those programs.

Jeffrey Weinstein (Hunterdon HealthCare Partners): But there's also a cost. We got a call from—and I don't often take these calls from somebody trying to sell us another program. It was an FDA-approved medication-adherence program for diabetics and . . .

Rich Daly (RavineRock Partners): FDA-approved? That doesn't make any sense.

Jeffrey Weinstein (Hunterdon HealthCare Partners): It didn't make any sense to me, either. They said it did. They said they were approved, it's $160 a month, and it's through a script.

John Hosier (Eisai): FDA doesn't do that. I caught a presentation at ADA, and they said there's a device that they've managed to wrap around . . .

Rich Daly (RavineRock Partners): Oh, oh.

Jeffrey Weinstein (Hunterdon HealthCare Partners): That's right. It is a device, and we actually listened to a half-hour call on it. And I said, "Who's going to pay for this?"

Craig Schilling (Optum): Yeah. Trinkets are great.

Jeffrey Weinstein (Hunterdon HealthCare Partners): But you're right. It's tied to a device.

Craig Schilling (Optum): Why does it say FDA-approved? Okay.

Rich Daly (RavineRock Partners): Yeah. But it's all around adherence.

Craig Schilling (Optum): I love your perspective because that's real world. Because we can talk about all the devices and the trinkets and the chips and all that kind of stuff that are trying to enable and help us understand. But at the end of the day, there're costs on all of that, and who's going to pay for it? Who's going to do the investing? I mean, they're not investing in just standard approaches right now, let alone all of the bells and whistles, that are even going to require a bigger investment.

John Hosier (Eisai): If I may add to all this, the device is nothing more than the beeps. You're either going to use it or you're not going to use it. That doesn't address the proper problem of how do you get everybody on the page.

Marc Iskowitz (*MM&M*): And it assumes that we're going to get—as Rich, you were asking—to the real drivers of behavior. Unless we do that, we're not going to get to the real problem.

Rich Daly (RavineRock Partners): Getting back to you, you can't change what you can't measure. And one of the things I think is a key linchpin here is now we, if these are, in fact, the right drivers, and I don't know that, it's a great place to start, but stapling the, "Hey, take your medication" coupon to a bag at a pharmacy, it hasn't increased compliance or persistency. It hasn't. We pay a lot of money for it and we think it works, we see ROIs that make our eyes pop out when none of us believe, so, it's great, but . . .

Marc Iskowitz (*MM&M*): A tactic may be associated with a script lift, but you don't know if it's real reason why they decided to go there.

Rich Daly (RavineRock Partners): Right.

Craig Schilling (Optum): That brings us to kind of the efficiency and the cost-effectiveness of the interventions. And we've had a little bit of conversation about it already, but we have to know who to target because not everybody needs the trinkets and the bells and the whistles or even the personal-beliefs intervention, you know? So you have to have that kind of, do the up-front homework, understand who these members are, understand who are the ones that are most in need at that time—because it does fluctuate, as we talked of an intervention because we know it takes time in that physician's office, it takes time at the pharmacy counter, and so if we did that in a blanketed approach, we're not going to have the time or money to be able to pay for it. But if we can target it and only go after maybe 30 percent of the population or the right 40 percent of the population, now you're allowing the system to be a little bit more efficient and cost-effective.

Marc Iskowitz (*MM&M*): We've touched on this already a little bit, but I just wanted to mention it, because this seems like the real roots of the issue here: How would we, practically speaking, integrate this psychologically based approach into a technological solution or marry

"At the end of the day, data talks, results talk, outcomes talk . . . This is an opportunity . . . to bring data in"

—Craig Schilling, Optum

it with, say, the Proteus Digital sensor in a pill? How do you see this approach playing nicely in the sandbox with some of the bells and whistles that are being tried these days?

Prof. John Weinman (Atlantis Health/Kings College, London): It should sit very well, because all the, as you said, these little devices are doing is picking up information, essentially. It's like the telemedicine problem, where everyone thought telemedicine would be the answer. People were supplying information back to the physician, but none of that really addresses the behavior-change issue and so what I think technology allows us to do is to develop a whole lot of systems that really let us monitor patients, let those patients see the result of that monitoring—in certain patients, monitoring what they're doing is a helpful thing—but what it particularly allows us to do is for patients to both tap into different types of support systems that they can go to that meet their needs.

So for example, if they are—if let's say a technology-based program is asking them about how they're doing and they're saying they're not doing very well, then that system then can reach out and explore that with them. It can maybe either direct them to key individuals, say a clinical person or whatever, or actually, some of the really smart systems are actually helping people think about their treatment in a different way, develop plans for taking their treatment, and so on.

So there are some very smart systems that are beginning to emerge, which are sort of working very closely with technology-based systems with the patient using these sorts of principles, exactly these principles, acknowledging that it's the behavior that has to change, that just measuring a biomarker or measuring something is just a starting point. And it's building in the challenges to beliefs, the helping people make plans, all of that, helping to remove the barriers—whatever it might be—all of those could be built into technology-based systems, in short. So it should—whether it's beginning to be—there should be a really good marriage between the sort of behavioral insights and what technology can offer, because it offers continuous sort of reach-out and reach-in to the patient, whereas standard healthcare systems, people turn out once every whatever, and you lose people. We know if you track people one at a time, we track adherence when people are starting a new drug, the biggest loss of people is in the first three months. And you talk about a persistence problem, they're gone. And ironically, well, not ironically but surprisingly, they're the people who don't come back, either. Non-adherent people don't come back to see their physician, because they're ashamed or demotivated or whatever, so they're sort of lost souls in a way. And technology-based systems have that constant reach-out, people engage with them, there isn't that shame of having to admit—and people do feel slightly ashamed in having to admit to having lapsed in taking their treatment for some reason. That's why they're always saying they forget, because that seems somewhat acceptable, not like they didn't want it. So to some extent, taking—not taking the human out, because the human is very important—but having these automatic systems that allow people to really, perhaps, engage in a very different way and in a continuous way, offer huge possibilities. We're just beginning to see some very good examples out there.

And it's a natural similarity. It's actually a natural marriage. The technology without understanding the human behavior is rubbish. But the human behavior understanding without really good access systems is not going to get there.

Marc Iskowitz (*MM&M*): Right.

Rich Daly (RavineRock Partners): No, no. I think the Proteus system that I was referring to is a great system, I think, but it's incredibly high-tech and then I think if you take some of the stapled reminders to the bag, it's low-tech. Those are important. Yeah, I mean, you've got to go the entire spectrum. You can't abandon any of it. Those programs actually do work. The ROI is there. There's something for everybody in these programs across the board. And again, having an understanding of what works for whom is what really matters.

John Hosier (Eisai): The big piece that's missing is a platform for all, aggregating it.

Rich Daly (RavineRock Partners): And targeting the right program for the right person. How do you identify the persons who spend the right money? The old "50 percent of my budget's wasted, I just don't know which . . ."

Marc Iskowitz (*MM&M*): Do you think that industry will come to the table because of the value-driving potential of this approach?

John Hosier (Eisai): As the blockbusters disappear, and driving efficiency out of every single product line that we have is more important, as we look outside the industry to best-in-business vs. best-in-class, then that's where we'll find the solution. Apple's making a big play in this now. They don't care if you have a FitBit, they don't care if you're using a Fuel Band or whatever. It doesn't matter to them. Their whole

platform will track all the data.

Marc Iskowitz (*MM&M*): The Apple HealthKit, right.

Rich Daly (RavineRock Partners): Well, they're agnostic. They're agnostic. I think that's a phrase that we should just—pharma should just say, "We don't care. We are agnostic. As long as you're getting treatment, eventually." For patients with diabetes, for example, everybody fails. The body is smart. It moves along the continuum of the disease and so if you're a pharma company, you know the patient's eventually going to show up somewhere along the line. If your patient, as a pharma company, be there and offer the right services and you'll be able to provide value to the patients when they show up. Be agnostic.

Craig Schilling (Optum): If you're developing good products, they will become standards of care. And so if you're helping in those conditions where those standards of care are utilized, then you'll do just fine in the long run.

Rich Daly (RavineRock Partners): Create value.

Jeffrey Weinstein (Hunterdon HealthCare Partners): Employers and large payers also have to embrace certain disease states to say, "You know what? Maybe this is dollar one for the deductible, but maybe not if you're a diabetic," because if you've got to meet a $5,000 deductible and you're paying for all your medication up to that $5,000, it might not take it, and that's not taking place today. We're now seeing plan designs from the employer world or from the payer world that're designed around these disease states.

Craig Schilling (Optum): And in diabetes, if you look at the agents and standards of care that are out there, there are probably more agents that are becoming all those different mechanisms that you are speaking to, there are probably more agents that are branded than are generic, so these members are being confronted with those decisions at the counter as you described, Jeff. A little bit, maybe, more so with the diabetic agent because there are these new, innovative, good approaches to improving diabetes, but there're no generic alternatives. So those are tough circumstances for the diabetic, but yet, these are also great advances that the pharma industry has brought to the diabetic.

Rich Daly (RavineRock Partners): Whereas antihypertension is the antithesis of that, right? I mean standards of care, generics abound.

Marc Iskowitz (*MM&M*): Jeff, the point you raise about payers is a great one and, again, speaks to the real-world barriers to funding this, but do you agree that this approach, this behavior-based approach, does hold value for payers or does it depend on the disease state, the drug?

Jeffrey Weinstein (Hunterdon HealthCare Partners): I think it holds a lot of value.

Marc Iskowitz (*MM&M*): Across the board?

Jeffrey Weinstein (Hunterdon HealthCare Partners): Because, and again, you have to take a long-term view, because if you're going to keep the patient healthy today and healthier tomorrow, regardless of what payer they're with and regardless of what employer they're with, as a society it's going to be better for us economically, but even from

socially, it's going to be better for us and we have to look at it that way.

Craig Schilling (Optum): We certainly feel pharma is a tremendous partner in this play. It's not about, to your point, Rich, it's not about promoting a certain product as we try to intervene with members. We're trying to intervene with members that have already been prescribed a medication and like I mentioned, if your product happens to be part of that standard care, you will be doing just fine, and so we can partner in that way to bring value to the system and support these types of programs because the decision has already been made by the appropriate individual. The physician prescribed that medication. So if already prescribed, it's our job, then, as the healthcare team to keep them on that medication that the doctor wants them on, and so we can all win with this scenario.

Marc Iskowitz (*MM&M*): Do you think that the ACA, healthcare reform is going to be a tool to facilitate this change?

Craig Schilling (Optum): I think so. I mean what we're already starting to see, and again, it kind of comes back to quality because of where the funding is coming from, and so there's a need to demonstrate quality. And so the 48 measures within the Medicare Advantage population, there's not 48, it's 44 or whatever it is, and they may be slightly different, but there are some very similar quality measures within health insurance exchanges that are now going into play and being beta-tested in 2015. Three of those measures are the exact three that are in star ratings for CMS: medication adherence around your statins, your antihypertensives with the RAS antagonist, and your oral antidiabetics. In a way, that is going to continue the adherence kind of, keep the bar high as it relates to adherence as we go into the health-insurance exchanges.

Jeffrey Weinstein (Hunterdon HealthCare Partners): And that's a good point, because we were very concerned being in all the different programs we're in. One of them happens to be the Medicare

Advantage program, roughly 1,000 enrollees. And one of the goals that we needed to meet was medication adherence. In all the other programs we're in, it's what's the generic percentage of fills vs. the name brand. And we were pleasantly surprised that we're meeting the bar and exceeding it in terms of adherence with those 1,000 patients, but we're also spending a lot of time with those 1,000 patients. We have a program in place to make sure that we're bringing them in. We have a program in place to make sure that the providers of care know where the gaps in care are for that patient. We're spending a lot more time with those 1,000 making sure we're doing everything right. We want to get to the point where we can take the 1,000 and give that same level of care to the 100,000 patients that we have, and again, it comes back to cost.

Craig Schilling (Optum): Investment—it costs a lot more to intervene with 100,000 than 1,000.

Jeffrey Weinstein (Hunterdon HealthCare Partners): Correct.

Marc Iskowitz (*MM&M*): And that's still in the Medicare Advantage program, so that's where your program is set up to do that.

Craig Schilling (Optum): Correct. And we're working actually very closely with another arm of Optum to help us identify where some of the gaps of care are for these patients, and I think it's been a very good marriage, working together.

Rich Daly (RavineRock Partners): ERPs will help, as well. I think as we get a standard of ERPs and a specialty can see across the therapeutic spectrum, I think you'll start to get standard there, as well, and I think it will help with the quality of care.

Marc Iskowitz (*MM&M*): Electronic Patient Records?

Rich Daly (RavineRock Partners): Yes, I'm sorry. My apologies.

Jeffrey Weinstein (Hunterdon HealthCare Partners): And that's what's helping us, and also what's helping is we had very good payer partners in all the programs now that we're in.

John Hosier (Eisai): You obviously can see where ACA is going to with quality measures. You can go back to the *Federal Register* where it's published and the original, what, 104 measures? You can bet those—the balance, the next 40—are going to be off that original list, many of them are, where maybe some of the influence lobbying comes from. It's a good start. It's a good direction.

It's difficult for pharma to work with that and help. We're hamstrung on a lot of the ways we can interface with patients in our disease state or in our therapeutic class. There's a lot of things that we can't do if the patient's not on our medication, hasn't opted into our program. It doesn't mean we shouldn't be trying. It doesn't mean we don't do the appropriate things, but we've got a ways to go yet before we get to the right, maybe, intent of what the law is supposed to be covering.

Marc Iskowitz (*MM&M*): We have two minutes left, and I'm just going to go back for a second to maybe what's working. Motivational interviewing is a behavior-based tool I've heard of that's become popular to varying degrees. What are the group's thoughts on its effectiveness, and Prof. Weinman, why don't you start?

Prof. John Weinman (Atlantis Health/Kings College, London): It's a good technique. It's just one of a whole handful of ways to change behavior. So the good things about it are some of the things we've all talked about. It's very much dependent on the person developing good relationships, using those sorts of skills, and it's good in terms of helping people look at themselves and maybe look at some of their beliefs and come up themselves with some intrinsic motivation to change and seeing the inconsistency in what they're doing by not taking their medicines and the long-term issues like blindness, etc. That's a sort of challenge around that, and it has been used.

I recently reviewed quite a lot of literature on different approaches to intervention, and what we know is that motivational intervening has been used and has been successfully used, but—and I think it's a really important "but" because people run away with the idea that that's the only game in town, and it's absolutely not. It doesn't address that whole range of drivers. It will address some drivers, but that whole range of drivers that we've spoken about today are not addressed by and cannot be addressed by motivational intervening. So it's good in its own right, but it's just one of many, and we need to be much more flexible and use a whole range of other skills.

Jeffrey Weinstein (Hunterdon HealthCare Partners): And we've used it. Our pharma partners have actually provided education to our care coordinators and to our RNs working with our patients who are high risk and not even necessarily high risk, but those we think have the potential to become high risk, they can be using the technique because pharma has helped train those nurses, and it's been very beneficial to us.

Marc Iskowitz (*MM&M*): But a multidimensional approach is still needed, no matter the success of any one modality.

Prof. John Weinman (Atlantis Health/Kings College, London): Yes.

Marc Iskowitz (*MM&M*): Final question: A lot of work in healthcare today is applied toward impacting the behavior of healthcare professionals—what are your thoughts on the ability to change how doctors interact with patients to improve treatment adherence? Jeff, will you address that?

Jeffrey Weinstein (Hunterdon HealthCare Partners): We just believe that over time as we're working with them and providing them data, one thing we've learned is physicians don't like the outliers. We've just, in fact, released the PQRS data to all of our physicians online across all our practices, and we're already hearing from our physicians how they individually think they're going to improve next year and sometimes it's like, "Well, I'm doing it, I just haven't been putting it in the right field in the EMR, and now I understand the importance of doing that because I want to show that I've reached the same level or bar of quality that everyone else has." Physicians are very motivated to do the right thing. They went to medical school for the right reasons and they want to do the right thing for their patients.

Prof. John Weinman (Atlantis Health/Kings College, London): I think what's interesting is we look at physicians doing the right thing. As I mentioned, since we're in the UK, we're very much guideline-driven, so you have to now not prescribe this but prescribe that, and so on—a lot of guidelines. And if we look at the uptake and the behavior change in physicians to adapt to the guidelines, it's not unlike the adherence behavior of patients. They're not that adherent. They give a whole range of reasons. Usually it's time—"Oh, I forgot," or whatever.

Actually, the same capability, opportunity, particularly motivational factors, drive physician behavior. So if we really want to change their behavior, we need to take a similar sort of approach. If we can be really effective. I've taught medical students and doctors most of my life, and you can turn them into nice people, you can give them good communication skills. But actually dragging them over the line in terms of changing their clinician behaviors can be sometimes as hard as it is with the challenge we've seen in patients, so there's a really interesting challenge there. It's a behavior-change challenge.

Craig Schilling (Optum): I had three items that I had kind of jotted down here that I thought would be important as we continue to try to work with the provider and the physician to be a more active players in this area. One is you need that timely and objective data so that you can be more efficient in your practice and working with the right members who need the right type of conversation. Then you need to train. I think we all recognize, especially as we now dive deeper into more health-psychology approaches and personal beliefs, that we need to train the healthcare team to have these difficult conversations.

It's so much more than asking whether or not they're taking their meds or even if they're taking them as prescribed. There's so much more to that conversation, and so there's training of the physician and of that team, and then the incentives need to be aligned. You need to kind of, and as you're saying, I think your doctor is starting to see and get motivated around the quality that they're delivering, how that's aligned with the payer system—and the quality measures that are being demanded of the healthcare system—if all of that's aligned, the incentives will be there for those physicians.

Jeffrey Weinstein (Hunterdon HealthCare Partners): And we've also learned that we have to give the tools at the time of service, so payers have come to us, other organizations have come to us and said, "We have these great tools and they sit over here, and just get your provider when he's in this thing over here in his EMR to look at this screen over here," and they're not going to do it. So we've embedded tools within our Electronic Medical Record that give them the gaps in care in real time, so that as they're treating the patient, they can see. So the patient just might come in because they have a cold. "Oh, wait a minute. I also see you haven't had your colonoscopy." It pops up. It's in their face. It's the ability to deal with issues in real time regardless of why they're coming in the office vs. waiting for them to come in to say, "Well, I think I'm having gastric issues."

Marc Iskowitz (*MM&M*): Right.

John Hosier (Eisai): I think as we get out of the pharma rep coming in every Monday morning and talking about the product that I have today or whatever's in my bag and just dumping information—feature, advantage, benefit—we've moved, done a nice job, starting to move the industry toward what's important for you, what do you need to know about the drugs and the next stop after we become experts at that is moving closer to point of care. Now I'm going to tell you about my product and all the wraparound services we have to make the patient successful.

They're going to help you save time, make you more educated to be able to communicate to that patient, but doing it when you see the patient right next, as opposed to doing that on Monday and two weeks later, the patient comes in and you're trying to remember, "What did they tell me? What do I have available today? What are the programs?" We're starting to get a little better with that. Technology's helping us a little bit.

Certainly, the need to do more efficient planning as field forces are starting to shrink and as you've got fewer reps trying to cover as many or more physicians, we're forcing ourselves to get better at it. That's the same issue we're dealing with. ■