



**Taking the Right Meds at the Right Time:
Medication Adherence, Health Outcomes,
and Costs
CVS Health
Alliance for Health Reform
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SARAH DASH: Alright. Good afternoon everybody. Thank you so much for being here. I'm Sarah Dash. I'm Vice President for Policy at the Alliance for Health Reform and, on behalf of our honorary co-chairmen, Senator Cardin and Senator Blunt, and our Board of Directors, I would like to welcome you all to today's briefing, and also to thank your supporter in today's briefing, CVS Health.

So, today we're going to talk about medication adherence—what it is, why it matters, and how various segments of our healthcare system are dealing with this issue. And we're also going to explore the evidence on how medication adherence relates to the goals of improving health outcomes and reducing costs. And hopefully, also, improving the patient experience, as well.

So, you can feel free to follow today's conversation on Twitter using the hash tag RxAdherence. If you need Wi-Fi instructions they are, hopefully, on the table in front of you. And we have a very full agenda and a really, really knowledgeable panel of experts today so I am not going to dive into the details here, but I'm going to actually just go ahead and introduce my panelists.

So, first, we're very pleased to have, as co-moderator, Dr. Will Shrank from CVS Health. He is Senior Vice President, Chief Scientific Officer, and Chief Medical Officer of Provider Innovation and Analytics for CVS Health, and he has a career consulting business on the side. Or he could. We're going to hear from Dr. Shrank briefly and then we'll hear from our panelists. To my right we have Tom Hubbard, Vice President for Policy Research at NEHI, the Network for Excellence and Health Innovation. And to my immediate right, Jonathan Blum, who is Executive Vice President for Medical Affairs at CareFirst BlueCross BlueShield. Welcome. And then, to Will's left, we have Raja Zeitany who is Chief Pharmacy Officer for Providence Health and Services, and he's going to tell you a little more about who Providence is and who they serve. And then, finally, we're very excited to have Dr. Marie Brown. She is a practicing Board Certified Internist and Geriatrician. She's an Associate Professor of Medicine at Rush University Medical Center, and Governor of the Northern Illinois Chapter of the American College of Physicians. So we're really thrilled to have everyone here. I think we're going to get some great perspectives on this issue. And welcome.

And, with that, I'm going to turn it over to Will Shrank.

WILL SHRANK: Well, thank you. It's exciting to see the turnout here. It suggests that folks are thinking more and more about how to keep people healthy and how to focus on optimizing the health of the populations that we serve. I bet everybody here is familiar with a lot of those stats around medication non-adherence; that half of patients don't take their medications a year after they've been prescribed, that the downstream effects to patients is dramatic, it leads to a great deal of morbidity, mortality and costs estimated at upwards to 300 billion dollars a year in the United States.

You probably have also heard folks saying that they have the solution to—or you've heard some folks say they have the solution to medication non-adherence. Maybe some

kind of a pill bottle that glows or pops or calls your mother and they may, in fact, have something that they're trying to sell to you but the reality is medication non-adherence, or medication adherence, is a really personal process. There's no simple solution because there are so many reasons that patients may have difficulty taking their meds. They range from the very personal, around beliefs and around understanding of the importance of the med. They include patients sort of beliefs about conditions in general and trust in the healthcare system. It includes the fact that many patients have difficulty even getting to the pharmacy or understanding what's on a prescription. There are issues related to the fragmentation of our healthcare system. A very challenging process for patients to figure out the insurance process and to achieve access to the necessary healthcare providers to get the medications that patients need.

So we, at CVS, have been thinking about this for well over a decade, trying to figure out how to throw as many things as we possibly can at the problem to create a multi factorial approach. There is no simple single solution. In order for us to actually fix this problem we have to try to personalize the response. And the types of interventions that we're exploring with range from simple approaches to simplified regimens like to synchronize prescription refills when patients come to the pharmacy, so instead of going 10 times to the pharmacy a month you get them all filled on the same day, or multi dose packaging, so instead of working with 20 different amber bottles you get all of your morning prescriptions in a single pouch, all of your afternoon in a single pouch, all of your evening in a single pouch. To better pharmacy benefit design, reduce or eliminate the co-payments for the most effective and cost-effective meds, to better digital support which allows us to text and provide reminders to and encourage patients to adhere better to their meds, and sort of at the core is our pharmacist. Our pharmacists at the corner drug stores who get to know patients and have relationships and use motivational interviewing and true relationships to encourage patients to do the right thing. And this is all on a foundation of the use of better data, data that allows you to, in real time, identify who is and is not taking their meds and, maybe even more importantly, to better predict who's not going to be able to adhere in the future so that we can be more proactive, more targeted, and more thoughtful about how we intervene.

So, it's interesting. You know, this is something that we've been working on for a long time but we're really getting a lot of traction in the marketplace now, and that probably is not surprising to anyone here today, and it's probably why you're here today that, in the setting of payment reform and the setting of value-based purchasing, providers are thinking about they provide care to populations very differently. They're focusing more and more on how to keep patients healthy rather than providing more services and that means focusing on what happens to patients between the visits to the doctor, between the visits to the doctor do they behave, do they engage in healthy behaviors and, for patients with chronic conditions, do they adhere to their meds. And now we're seeing a true alignment of all the stakeholders in the healthcare system. Whether you're the provider who's taking risk for the population you serve; the payer, who's always had responsibility for risk for the population they serve; pharmacies whose job is to dispense; manufacturers who are trying to optimize the value of the medications that they sell by making sure that the right patients are able to take them; and, most importantly, the

patient who's the beneficiary of better adherence to medications. We are seeing a true change here where all of our interests are aligned. And, in healthcare, in healthcare policy when you look around how often do you find an issue with as much importance and its ability to maintain and improve the health and reduce the costs of the populations that we're caring for and where essentially all the interests of all the key stakeholders are aligned. So, I think that's why we're all here today. We're here under the recognition that this is the right place to invest time and energy and money and resources. It's the right time for the people on this panel and across the country to collaborate around this problem. It's the right time for us to actually make a move and do something useful.

So, we're really interested in hearing what folks on this panel have to say. There are some really, really, really, really thoughtful folks here and we're really interested in hearing what you all – the questions you all have to ask and try to push us to see how we can do better and do faster. And we just really thank you all for coming and joining us and look forward to the day.

SARAH DASH: Great. Thank you so much, and now Tom Hubbard from NEHI.

TOM HUBBARD: Hi, everybody. Tom Hubbard from NEHI and just to give you a little background on us, we are a small think tank operation headquartered up in Cambridge, Massachusetts, built on about 90 some odd member organizations that were deliberately pulled together from different sectors in healthcare or, as I described it, different warring parties in healthcare. Pertinent to this conversation, we are part of the Steering Committee for the Prescriptions for a Healthier America Campaign which some of you may know because you may have been visited by them, is a coalition that is looking to identify and promote, I'll call it, adherence-friendly policy at the federal level in Medicare and elsewhere and so, we'll come back to that.

My job is to give you a very quick overview, a sort of medication adherence 101 and it's going to draw a lot from the work of everybody else on the panel including Dr. Shrank who, if you don't know, is one – I don't know if I should call you a founding father but you were definitely a pillar of research on adherence in the United States.

So, what's it all about? Well, it's about taking medications as directed by the physician or whoever that may be out there these days and for taking them as directed for as long as is directed. And, in the case of chronic disease, which we are increasingly so focused on because of the poor outcomes out there and because of the implication for cost, that can be a very long time. That can be a lifetime. So, we'll come back to that, too.

What's the reality? Will touched on this. Some patients never start adhering. They just don't pick up the first time. There's a term for that we can come back to. Many who do start stop and many who start and then stop then start and stop again in various patterns over time so that's indication of the complexity over time that we're dealing with in creating this kind of multi factorial response that Will just talked about. And what are the results? The results are poor outcomes that didn't need to have to be if people had

medications that were safely and effectively prescribed and took them as directed, and avoidable medical spending which is certainly a huge issue up here.

So, what does this behavior look like? Will just mentioned that the usual statistic we talk about is 50% of patients end up not being adherent. This happens to be a chart that was done by a team that included Josh Benner, who's another major researcher on adherence done a few years ago, does not reflect those patients who didn't pick up the first time, so if you go to the top left-hand corner of this chart, that's starting with people who did pick up and there tends to be an initial burst of adherence and then it, you know, there's this tail, this long tail across populations of declining adherence.

How do we know this? One thing that Sarah asked me to cover here is, well, how do we tell if patients are not adherent and the metrics – there's lots of ways to tell potentially, or at least in an academic setting, perhaps, if patients are not adherent, but I think very important for this audience, the metrics of adherence that are in place today in Medicare, which is – it's so good to be on with Jon Blum – Medicare being really the first place in the U.S. health system where we've got system wide or nationwide adherence metrics in place. It's a metric called PDC, Proportionate of Days Covered. Essentially that's a metric of if you were supposed to be on this pill for 100 days can we tell from your refill history whether you had a pill a day, if that's what you were supposed to be taking, for 100 days. So it's essentially a pill count measure. And that measure is what's used in the star ratings of the Medicare Drug Plan, so if you've looked at that or if you have elderly parents who are choosing a drug plan every year and you're looking at a 5-star rated plan, if you read the fine detail you may be seeing metrics reported out of categories of adherence of the customers with those plans. That's what they're measuring.

In the future, just to throw in a futuristic note, there are various ways of monitoring adherence electronically. Again, we'll mention some of those. I mean, pill bottles that will beep a message to somebody. There is interest in the so-called digital pill. There are actually clinical trials going on regarding this now. That's basically putting a dissolvable chip on a pill and it will beep out what's actually going on in your stomach once you take the pill. That's a little futuristic.

To bring it back to cost, this is a chart that was done as part of an article in Health Affairs a couple of years ago by a team led by Bruce Stuart who is a professor at the University of Maryland School of Pharmacy, and Bruce is also a member for several years of the Medicare Payment Advisory Commission. He and a team dove into Medicare data, in this particular case, they defined patterns of adherence among patients who were diabetic and then looked at their adherence relative to, in this case, antihypertensive medications. The takeaway from this is that certainly the different categories of adherent patients start out with different—oh, and by the way, what's playing out left to right is their per patient per month medical expenses under Medicare A and B—so they start out in different places but it widens over time and that swing at the end of the chart is about \$500 a month per patient per month. So, serious money related to what appears to be different patterns in medication adherence. So, again, Will teed this up. This is a real lever to try to figure out in terms of controlling total cost of care.

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The fiscal angle on this, as folks may or may not know, the Congressional Budget Office in late 2012 had watershed moment in this field by finally doing a systematic review of evidence around the association between use of prescriptions and medical costs and found an offset between number of prescriptions used in Medicare and offsets in medical expenses under Medicare Parts A and B. So this is, again, just number of prescriptions out and bills apparently avoided downstream. This chart, here, was done about a year ago by an economist by the name of Chris Roebuck, who has also been a partner of folks on the panel, where Christopher Roebuck broke out the CBO analysis by disease groups and what you can see here is that when we start honing in on different disease states or different kinds of patient populations, the potential fiscal impact could be much bigger.

Let me just skip through that. So, what do we do next? I think, again, to amplify what Will said, we're really now focusing on, or need to focus on, policies that optimize patient medication use overall and policies that lift patient medication adherence. And I think those two terms—optimize and lift—are the ones that I certainly hear from practitioners and from benefit strategists and folks doing the actual work, like the folks on the rest of the panel, unlike me. So, optimizing means looking at the entire regimen of medications that a patient is on and, through combinations of interventions and policies, making sure it's safe, it's clinically effective, and it's "adherable." It's dosed in a way, it's done in a way so that it best enables that patient to actually adhere to what can be an extremely complicated regimen for a lot of patients. Anybody with elderly parents or planning on being elderly you know what I'm talking about.

So, what are examples of policies that will do this? Medication synchronization. Good evidence to suggest that if you make it easier for the patient to pick up all at one time, you optimize and you get a lift. E-prescribing. People don't necessarily first think of e-prescribing as an adherence intervention but the evidence is that it is, and it's certainly been the goal. And medication therapy management, MTM, services certainly is aimed at that as well.

Let me, in my remaining 40 seconds, tell you that readmissions is a particular sort of hothouse flower case for this. As folks may know, cutting avoidable readmissions is a major objective in Medicare these days. It's a major objective in a lot of other places, as well. Suffice it to say, the patients that are typically singled out for attention on readmissions are patients who are almost, by definition, on a lot of medications. This happens to be a sort of pencil chart that the Jewish Healthcare Foundation out of Pittsburgh did a few years ago when they did a project on this, and I don't expect you to read the fine print, but basically I think, as Dr. Brown is going to be able to attest when we get to her, historically it's been a harem scarem kind of process determining what meds the patient is on coming into the hospital and even making sure that you're passing a good list off when you're sending that patient home.

This is something that we did a deep dive on recently with the Anthem Foundation. Anthem, obviously being a payer that covers a lot of states and a lot of lives around the country, we particular looked at Connecticut. A quick takeaway is that even now, success

at this depends a lot on what we call human interoperability in that the more that hospital staff can create relationships with providers out in the community, whether it's Visiting Nurse or home health, certainly the patient, him or herself, and the family, community pharmacy, primary care then the odds of success are that much greater.

So let me stop right there. I apologize for the breathless overview, and looking forward to the conversation.

SARAH DASH: Great. Thanks so much. And, for those of you who are curious, there is a link to the CBO report in our additional materials and they link to the readmissions study – I mean, the actual executive summary of that is in your packet.

We turn to Jon Blum. Dr. Brown, would you like to go next?

DR. MARIE BROWN: Whatever your pleasure.

SARAH DASH: Okay. Sam. Why don't we just go ahead and keep it this way, then.

DR. MARIE BROWN: Thank you Sarah, and thank you very much, Will, for teeing that up, and it is truly an honor to be here. My day job is, as a physician, an internist taking care of adult men and women and a geriatrician, so I write many of these prescriptions that we find our patients don't take. And, when I began my research and my journey, when I really started to listen and see the World Health Organization treaties that came out in the early 2000's and saw the figure that 50% of my patients don't take the medicines that I prescribe I was, like most physicians—there's an article Chris Zinzky and I wrote, and I thought my patients take my medicines because I'm a great communicator. I care deeply about my patients. But when I really looked and allowed myself to believe the data I began to listen a little bit more clearly and asked my patients in a different manner, to your point, Will, and developed a trusting relationship because we thought that if they didn't take their medicine it was as simple as they – as you alluded to – they forgot. It couldn't be they chose not to follow my advice. So, people say, well, we'll just get them a pill box and we'll develop an app and we'll call them and we'll send them a letter and we've got it all fixed. Right? Well, much to our surprise and dismay it's pretty complicated. It's very complicated. At the same time, the majority of patients would not tell me that they were not planning, in any way, shape, or form, to take that medicine.

I was giving this talk in Canada and a woman came up to me, a nurse practitioner, afterwards and said that, at the end of the day, the physician went out in the waiting room and looked in the garbage can and, sure enough, a third of the paper prescriptions that he had written that day hadn't even left the waiting room. Right? And, only because of e-prescribing could we even begin to identify the number of prescriptions that were initially written for the first time and never picked up because the only other way to find out was to look in the garbage can. And, in diabetes, it's 40% of patients don't even begin the medicine we start.

So even though forgetfulness is a problem it is not the major reason patients don't take their medicine. There is very good, very valid reasons, very intentional reasons patients don't take their medicine and I wrote an article with Jennifer Bissell a few years ago, published in the Mayo Clinic Proceedings, that led to us having some resources to interview our own patients about why they do not take their medicines. And, in addition to finding out why they don't take their medicines, the first thing we needed to do was identify if they were taking them or not because it was often hidden. So, she and I, on a Saturday afternoon in our office outside of Chicago in Oak Park, we asked our most dear non-adherent patients if they would come in and share their stories. Now, these videos, we have a two and a half minute video, are real patients of ours that I had the honor of caring for to this day that I took care of for 10 or 20 years and it may have been years before we tackled or uncovered the non-adherence, and then another few years until we addressed the non-adherence and got them to be adherent. So, we'll play that video.

-VIDEO: WE DIDN'T ASK THEY DIDN'T TELL-

ROSEMARY: I've never really had a doctor to really ask me am I – if I'm taking – following my medication. They never would ask.

UNIDENTIFIED PATIENT: I wouldn't take it on a regular basis and then I would see you and I would let you know that I'd sort of been taking it, but, you know, really – and in part I don't want to be admonished for not taking it. I'm one of those people who really wants to please her doctor.

UNIDENTIFIED PATIENT: And, then the doctor would write out the prescription and whatever medication that I have to take. And that would be it. Sometimes they just get up and walk out of the office and I'm wondering if he's coming back to talk to me or – or what.

OBSTACLES

CALVIN: [Caption: CALVIN, PREVIOUSLY UNCONTROLLED DIABETES and HTN, Hgb A1C>12 NOT AT GOAL ON 1 DRUG]

Because I work shift work and I'm off every two days and not the same day each week, not doing the same thing consistently, then I would miss taking my meds.

JANE: And it was real hard to go in there and say I can't take this medicine because I can't afford it. Because I was embarrassed.

TESS: [Caption: TESS, PREVIOUSLY UNCONTROLLED BP 200/120 NOW AT GOAL ON 2 MEDS] I just worry about long term effects of something like this, the drug I'll have to be on for the rest of my life.

UNIDENTIFIED PATIENT: And then they would tell me that my pressure was high but I feel fine. So I saw no need to take it.

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SOLUTIONS

MARIA: [Caption: MARIA, PREVIOUSLY UNCONTROLLED BP 180/120 Heart attack and coronary bypass at age 51 NOW AT GOAL ON 2 MEDS] At times because I'd get home sometimes and be tired or forget or fall asleep watching TV or something. Next thing you know, oh, I forgot to take it, you know.

DOCTOR: So, now how do you take your medicine?

MARIA: Now, all my medications I take once a day. I take them in the morning before I leave for work.

UNIDENTIFIED PATIENT: I would say just spend more time with your patients and listen to what they're saying.

DOCTOR: And how do you build – how should we try to build trust with patients?

UNIDENTIFIED PATIENT: Hm. I can only say time. I – that's the only way I can see it.

LINDA: [Caption: LINDA, CHOLESTEROL>400 LDL>340 MOTHER HAD HEART ATTACK AT AGE 48] I feel like, in a way, maybe there's some more follow up with the pharmacy to see how often I'm filling my prescription.

DEBORAH: [Caption: DEBORAH, PSORIATIC ARTHRITIS] And now that I know it's – it's so easy just to turn it over and unscrew it that's made my life a lot easier.

SANDRA: [Caption: SANDRA, PATIENT SERVICE REPRESENTATIVE] During the staff meeting I suggested that I call the patients to give them a courtesy call, not only to remind them of their appointments, but to also make sure that they bring in all of their medicine.

DR. MARIE BROWN: Those are real patients and that was just a clip from part of a video where there's open access to you and I hope you'll have time to look at it. It's a great lunch and learn and it drives a lot of conversation. So you saw just a few snippets of why people hide their medication taking behavior, some of the obstacles and a few of the solutions. So they want to please us. So we ask are you taking your medicine, they say yes. Because if they say no what do we do? Well, the reality is we know what can happen. I'll round from 7 to 8 in the morning and then I see patients at 8:30. Now, from 7 to 8 I may sit with a family and say, because they're diabetes was uncontrolled for 15 years, they're going to lose part of their toe. Or, somebody came in overnight and had a stroke because they didn't take their blood pressure medicine for 15 years. A devastating stroke. Or we're arranging for an AB shunt in the arm because somebody didn't take their diabetes and hypertensive medicine for 20 years and now they're going to be on hemodialysis for the rest of their life. Fifty-, sixty-, seventy-year-old people. And then I

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go to the office at 8:30 and who do I see? I see three people who look exactly like those people did 15 years ago and what do I say to them? Don't you understand? Don't you know what's going to happen? Now you must take your medicine. This is what's going to happen 10 or 20 years from now. Do you take your medicine and, of course, now they say yes because they're afraid that I'm going to yell at them or admonish them. Because I care deeply about them. But many people do not know. That's not the reality that 10 or 20 years – they may not view that their future is one to look forward to. They're more in the here and now.

So we need to ask our patients, the entire team, from the medical assistant to the receptionist to the pharmacist to the physician in a blame-free environment. If one member of that team, once medication adherence is discovered, admonishes or makes that patient feel ignorant or uninformed we've lost because then the next time they're asked they will hide it once again. Just as health literacy, or literacy is hidden. These are some of the obstacles. We're going to address the mistrust on the right. And altruism. You saw one patient talk about feeling asymptomatic. Also, altruism. Most of us, in this room, are altruistic or aspire to be, putting the needs of others before our own. That's why you're in public service. But what if a patient has \$30 or \$50 a month and somebody else in the family needs something? Often they are motivated by altruism to sacrifice their own need for someone else. That is a laudable reason for not taking their medicine.

We're going to talk about mistrust in just a moment. But, on the left, forgetfulness, confusion, cost, and, thanks to you and the hard work many of you have done here, access and costs are lower. But, confusion still remains and I hope we'll talk about this in the Q&A. Although 80% of medicines are generic now, the blue pill this month may become the pink pill next month and the white pill the following month. So, if somebody's on 5 medicines, which is the norm, or more, for my patients, 5 to the 5th, the number of combinations over 3,000. And providers don't realize that and the patients are very confused and we can talk about what they did in the UK. Other ways to look at obstacles that I hope we will dig deep into in the conversation today, from the patient perspective, the provider perspective, and this negative attitude to the non-compliant patient. There was a time in the '50s and '60s when, if somebody didn't take their TB medicine what would happen? They could be incarcerated because they were a public health menace. You can still incarcerate someone for not taking their medicine today in some states. So, this cultural attitude over time that the non-adherent patient is sort of a "bad" patient we need to overcome.

And lastly, developing trust that, Will, I'm so pleased brought up early on in the conversation. This is a chart from Palene and you can see on the X axis, it's competence, low to high and, on the Y, caring. So, many of us aspire to be respected. You may have high knowledge, you'll be respected, but if you don't show that you care you won't be trusted. And similarly, if you have a lot of caring but you don't know your stuff, you'll be met with affection but you won't be trusted. Trust plays an important factor here and you heard one of the last patients on that video talk about—I said, how do you develop trust? And she says, "Time," just like you develop trust in any other relationship. It takes time. And time is what is being squeezed out of my time with my patients in healthcare now.

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So, to summarize, a non-adherent personality does not exist although we providers often think it's someone who is less formally educated or has less income. That's not true. Adherence to medication is really unrelated to adherence to other lifestyle recommendations. And, non-adherence is a rational behavior. It is determined by beliefs and their own personal experience and the experience of others in their community. Most non-adherence is intentional. Some of the solutions are to develop the time and the relationship, to engage the entire team, and provide that very important time to develop a trusting relationship. Thank you.

SARAH DASH: Thanks so much, Dr. Brown, and thanks to your patients for being here on video.

JONATHAN BLUM: Well, thank you for the opportunity, thanks to Sarah, thanks to Will. What I want to do is do two things. Number one is to put the pharmacy benefit in context for a health plan and CareFirst BlueCross covers 3.1 million members. We cover product lines in Maryland, D.C., and part of Virginia. We are the largest carrier for the Maryland-D.C. exchanges. We are the largest plan for the federal benefit program given our location. We are mostly commercial members. I want to get some context to how we think about pharmacy benefits, but then, second, to talk about strategies for how we try our best to help members stay compliant.

This past summer, we built this slide that surprised us and there's this common statement that says that pharmacy benefits are 10% of total medical spent. For a health plan covering commercial members, we believe that you combine those that have both a pharmacy benefit and the medical benefit through CareFirst, that pharmacy benefits now are close to a third of total spending. That's both the outpatient drug benefit, but also those drugs provided through the physician office setting. This is not drugs provided in the hospital. We can't break it out, but for those that have both the pharmacy benefit and the medical benefit through CareFirst, pharmacy has now become the largest component of total medical spending. Hospital spending is falling, physician spending is roughly staying flat. We don't have a lot of post acute care relative to Medicare given the population, but if you're a health plan today covering commercial members—the young, the working age of the near elderly—you are spending most of your time trying to think about how to manage and to keep your members compliant on pharmacy benefits. We, as a company, care management portfolio, spend roughly more than a third of our time thinking about pharmacy. Our physicians our demanding solutions, our accounts demanding solutions, members demanding solutions for how we can better manage and control the total cost for pharmacy benefits.

And just to give it more context, CareFirst spend, in the last couple years, has been roughly flat, similar to the Medicare program, similar to other major payers, we are seeing total healthcare spending staying roughly flat. Small growth here and there. But the pharmacy portion of the benefit is growing tremendously and this is just for the outpatient drug spend. In the last 12 months we have experienced 15% growth in the outpatient drug spending and it's not because we're paying for more scripts to our

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members. The average number of scripts, the number of members who are on multiple scripts, has stayed relatively flat. In fact, there's a downward trend in the number of people who are on multiple medications—5 or more. What is driving pharmacy spending for us, and I'm sure it's true for other health plans throughout the country, is two things. Number one, the tremendous growth in Hep C drug products, which is a good thing. It's been, by all means, a very powerful drug that can cure Hepatitis C, but it's also price inflation. Those two things are driving this growth rate and it's particularly true for specialty medications. Those high cost complex medications grew 39% in the last 12 months. So there was a high cost specialty medications but, in addition, just general brand inflation that's driving our spend.

So we have basically three strategies right now to try and manage best we can this growth rate. Obviously, to control the price of premiums, to have products that are attractive in the marketplace and so managing pharmacy spend really is the key focus right now in order to accomplish those business goals. The first thing that we do is to try and secure the best possible pricing. For a health plan, we can't operate—for a midsized health plan, we can't operate a PBM by ourselves, so we have to partner with CVS Health, one of the largest PBM's in the country, to secure better pricing. The second strategy that we do is to integrate pharmacy benefits to our total cost of care platform for the patients in the medical home setting, try and answer three questions. Number one, what drugs should the member be on? For those who are taking multiple medications we want to make sure their PCP, their specialist themselves, understand what is the right mix of drugs for them. Second, is how to boost compliance for those that are taking costly drugs. We want to make sure they stay compliant and achieve the full benefits of those costly drug regimens. And then, third, we know that many drugs, particularly taken in combination, can create member instability. They can go to the hospital, they can get sick. Sometimes staying compliant causes members to become sick, we want to make sure that we understand which drugs might lead to that instability.

Then last is, we are putting in place this year the same kinds of strategies like securing deeper discounts, securing rebates both for the outpatient drugs but also for drugs given through the physician office setting. We are moving towards more restrictive formularies for those drugs provided through the physician office setting given the growth, given the reliance, given the tremendous change right now to those prices and to the use of those drugs for those drugs not paid for in the outpatient setting but those drugs provided through the physician office setting.

So, CareFirst tries to ensure that every member is part of a well-focused primary care medical home program where the PCP really is the partner, really is the quarterback, particularly for those members that have multiple chronic conditions. And then, second, our strategy is to surround the PCP with 16 different programs to help identify which patients could benefit from other kinds of care interventions. Complex case management for those that have a trauma or a very troubling cancer treatments, wellness prevention for those who are trending sicker but don't have full on-stage disease, those that need a second opinion by a physician expert throughout the country, but we surround the PCP primary care medical home with 16 different programs that we call a Total Cost Care

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Initiative, really to surround the primary home with more programs to coordinate those patients, particularly those that have high need, complex need, and multiple chronic conditions.

We operate two programs in partnership with CVS really focused on trying to answer those three questions: which drugs should a patient be on, how do we ensure compliance, and how do we ensure that we find those members who are on drugs that could lead to instability? I'll talk about those two in a second.

So, the first program we operate in full partnership with CVS is the Pharmacy Coordination program. And here, what we're trying to do, is identify members who are taking very expensive drugs, very complicated drug regimes, drugs that can lead to difficulty with adherence, difficulty with compliance where we have, say for, Hepatitis C, a 12-week course of treatment. We want to make sure those members really stay compliant with those drugs. As a payer, obviously, and for the member, too, don't want to pay for four weeks of treatment to see that patient disappear and not complete the course of treatment. What we do is, once we can convince that beneficiary to come into this program is to really have a nurse case manager that's staffed by CVS to work with that patient, to talk about the side effects, and talk about the strategies, and talk about the importance for staying compliant, to really follow that beneficiary through treatment, referring back to the PCP to make sure that we're doing everything we can to help that patient go through very difficult treatments. Think about Hepatitis C, think about MS, RA—those very complex diseases that require very complex medication, very costly medications, to stay compliant.

The second program is the Comprehensive Medication Review program. And here, this program is really trying to answer the question what should the member be on? For those members who are taking multiple medications, say 5, 10 or more per month, those who are on very complex drug regimens, those who are on drugs that could lead to instability, we work with the PCP to take that full drug picture and send it to an independent CVS pharmacist that's working off-site, but that's working with the patient and the PCP and their specialist to really try and identify which drugs in combination could lead to harmful interactions, which drugs a member is not taking because they can't afford it or they don't understand the complexity, or it creates side effects that are problematic, to try and reconcile duplicate medications, to work with those specialists in order to try and reduce the one that's causing the challenge, but really to use independent pharmacists to work hand in hand with the PCP, with the patient, to try and answer the question which drugs should the member be on. The key to all of this is that the PCP practice is taking total cost of care accountability on the total spend, so if they're not managing their patients, they're not understanding which drugs that patient should be on, working to reduce problems, working to promote the patient compliance, that PCP practice doesn't get the full financial benefits to the program. They get the share in the savings; get the share in the overall total cost of care reduction by being very prudent managers, not just trying to reduce hospital stays but particularly the pharmacy benefit as well.

And with that, I'll stop.

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SARAH DASH: Thank you so much, and so now we'll please have Raja Zeitany, who is going to talk about the health system perspective in all of this. And for those of you who joined us recently, you can follow the conversation on Twitter at #RxAdherence.

RAJA ZEITANY: Thank you everyone. Thank you Sarah, Will, for hosting this, to the Alliance for Healthcare Reform to bring us all here because this is an extremely important topic that's not a controversial issue. We know we have a very significant issue here that needs to be addressed.

Let's get started. A little bit about Providence Healthcare where I come from. I'm Vice President and Chief Pharmacy Officer for Providence. Providence is a west coast based company that is the largest healthcare provider in five states up and down the west coast including California. We're merging with another large system there and we have, you can see some of the numbers. This is prior to St. Joseph merger, but we see about 3.5 million new patients a year. And that's at our current state, and that number is going to go up to significantly over five. So it's a massive opportunity to implement change on a large scale. We deal with Inuit, which are like Eskimos, in remote regions of Alaska down to inner city urban areas in downtown LA, so we get to see the full spectrum of patient mix and the type of issues they face in getting their medications and how do you manage compliance or medication adherence in those settings that vary so significantly.

Some facts about medication behaviors. One out of every heart attack patient stops life saving drugs after just one month, so they might pick up their first prescription but, within a month, something has dropped off and, again, these are life saving drugs. This is not something benign. Fifteen to 31% of all prescriptions are not filled the first time and Dr. Brown says she finds them in the trash can, but you can go into any hospital and find patients that are being discharged and they're getting their discharge prescriptions and about a third of them, the patient never picks them up on the way out of the hospital, even if we're providing them for free. And a lot of times we do that. We give them for free to make sure they don't end up back in the emergency room two days later and they're still not picked up. One out of two prescriptions that patients are on are not taken as directed. And when you look at that, we're using more drugs in more patients than any time in history, so actually the problem is getting even worse than it was 20 years ago in terms of the incidents or the number of absolute cases of patients being non adherent to their medication regimens.

So then, when you look at, well, okay, so what does this mean in the big picture? As you look at it, the lack of adherence to a medication regimen causes us to not have the ability to manage our population's health. And if you look at the number one causes of death, heart disease, cancer, and stroke are the big three. Fourth is medication non-adherence. So more than accidents, diabetes, it's patients not taking their medications. Something so simple as taking your drugs as prescribed is causing this type of impact on our society today.

This is some of the financial consequences of non-adherence. There's an impact to the pharmaceutical companies because they, of course, are not – 30% of their drugs are never even being picked up by a patient. The employer groups, so if you're a company and you have 10 million dollars' worth of claims for your employees per year about a million dollars of that, or more than a million dollars of that 10 million dollars you're paying is all waste because it's for patients not taking their medications as directed.

And then, the last one is looking at coronary artery disease—oh, I'm sorry. So, what does the total number come out to? I think Will may have mentioned it. It's around 300 billion dollars a year that is estimated the cost to the American healthcare system in medication non-adherence. So it's an astronomical number. And then, if you look at the different diseases, which I'll go into the next couple of slides, the impact of what happens as the patient gets sicker, the financial ramifications of the non-adherence end up costing you actually more. So, the sicker the patient the more expensive the impact.

What happens if we use medications correctly? In studies where they really looked at compliance or adherence to see what happens with the outcomes and the HOPE and the S4 trial, which were focused on statins for cholesterol management, there was a 40% improvement in mortality when medications are used appropriately. That's mortality. That's death, not morbidity, which is a very significant number. When you look at, for stroke and heart attack, if you bundled—and these are some of the things that these guys are talking about in terms of making a simplified regimen that is synchronized and easier for the patient to use—there was a 60% reduction in hospitalization for heart attack and stroke by implementing those types of measures. And then, as we increased, and I think this was mentioned a little bit earlier, as we increase our spending on medications, a slight increase on spending on medications results in a huge return on investment in savings because of the harmful impacts of not taking those medications and that's where it's demonstrated there. So the benefits to cost ratio, for congestive heart failure, 1 to 8.4. So, for every dollar you spend getting patients to adhere to their medications you're going to get back about 8.4 dollars for that. So this is not foolish money. You know, you're not throwing good money after bad money. This is really an opportunity to invest a little and save a lot. And that was just dollars.

Now, one of the things, Dr. Brown presented a great video with a number of patients and their hurdles, but if you look at the literature across the board there's over 250 barriers that have been identified as preventing patients from taking their medications as directed. So you have patient-related: forgetfulness, lack of knowledge, they don't understand the value of their therapy, they're in denial, they can't afford it, social support—it goes on and on with patient-related issues. And then there's medication-related. You know, we put patients on 30 drugs, 35 drugs at a time and to try to keep up with that, you're 65 years old, you have dementia, you have six co-morbid conditions and you're trying to keep up with what do I take when—are you kidding? Who's going to be able to do that? I mean, realistically, who is going to be able to do that? I can tell you with my own mother and my own father, you know, if their son wasn't a pharmacist there was no way they were going to be compliant. So those are the kind of things that we have to work together to simplify how we prescribe. Provider-related—these are some of the things that were

mentioned also. Poor relationship, communication, lack of feedback, not listening to the patient. So those are associated. And then health system related, you know, what type of health insurance, what's the co-pay? How often can they get discounts, whatever. All these things add up, so 250 different barriers that cause the lack of adherence.

And so, I can tell you, 35 years ago when I was in pharmacy school we talked about patient compliance and the problem. Thirty-five years later nothing has changed and so we're still exactly where we are today, so we haven't done a very good job of moving this along in that period of time because we're here talking about it today. And, you know, that just clearly demonstrates that we haven't made much progress.

And so now, one of the things of how do we solve this, there's a multiple number of tools, but everybody thinks technology and that, well, I'm sorry, there's not an app for this, okay. I've been in urban areas in a thousand-bed academic hospital where half the patients do not have a smart phone. Many don't even have a cell phone. So an app and pushing out information sounds great to folks on the west coast and after all, there's Providence is partnering with IBM, that we're going to be the largest partners of IBM and Apple to create innovative ways in delivering healthcare. But, it's not always a technology solution. This is a people solution. And so then, when you look at some of the best outcomes, really a lot of it revolves around the pharmacy because patients visit their pharmacy three to four times per month, I believe, compared to visiting their doctor's office once every six months. So that's, you know, 36 touches a year for that patient in the pharmacy versus two a year in the doctor's office. So that's the ideal location to catch these patients. The other thing is integrated healthcare delivery networks, that's like with Providence where we own the hospital, we own the doctor's offices, we own the pharmacies, we own the homecare infusion, we own every aspect of the patient's care. So when they walk into one of our pharmacies we're not just looking at what prescriptions to fill. We're also looking at their electronic medical record to see, oh, you were in the emergency room two days ago for a heart attack and you're still on all these meds. Or, I don't see a prescription for this. So that the data, the availability of all the information, all the encounter data is critical.

And lastly, a plug for my profession, you know, which we haven't done a very good job is that pharmacists are really uniquely qualified to deliver this information. We spend 7 years getting a degree in pharmacy. Seven years studying drugs and diseases. And many folks go on to get another two years, one of residency and fellowship. These are really the drug experts that this is what they do. And in hospitals, pharmacists are very an integral part of the healthcare delivery for patients. In the retail setting we haven't utilized that talent pool to its best, and this is where MTM, Medication Therapy Management, programs and the like come into play and I think somebody else had the on, as their opening slide, increasing the effectiveness of interventions to improve adherence could have a far greater impact on population health than any other advanced medical therapy. And this comes from the World Health Organization. So that's a pretty powerful statement. I mean, it's really giving us where we need to go. And that's it. Thanks everyone.

SARAH DASH: Thank you so much to our panelists. So we've heard this is a life and death issue. We've heard billions of dollars are at stake. We've heard it's a people problem so now is the time ask questions. If you have a green question card you can put a question on the card and someone will collect it for you. You can come up to one of the mics and ask a question, and we know that everyone has busy, busy schedules but, as I said, this is a life and death issue so you should feel very guilty if you leave. But if you do have to leave fill out a blue evaluation.

Alright. Well, so, as people are getting organized with their questions let me ask this. So, we've heard from the very personal patient level, all the way up to the health system and the plan level that this is a data issue, it's a fragmentation issue. We've heard about the different roles that people have to play so as people are sitting here and thinking about the policy implications, can the panelists give their thoughts on how does this connect to policy? I mean you can't just call up your constituents and tell them to take their medicine or else, right? So, how do we do this?

TOM HUBBARD: I'll take that. I'll take the first stab at this. I'd like to think that a corner has been turned, at least in getting the serious attention of members of Congress and congressional staff in starting to see this as—to go back to the beginning, what Will said—not a problem that can be solved by one-offs. You know, it's fascinating how some of the adherence gadgets are and I sit in a building up at Cambridge which is one of the world center of trading adherence gadgets, quite frankly, beeping pill bottles and everything else, but this really is something that has to be solved almost in an engineering way in thinking through the patient's entire, whether you would call it the patient journey or the continuum of care, or the patient's medication-related experience. I mean, we saw again and again in the presentations that this is something that, particularly for the chronically ill patients, that we're tending to focus on a lot in the payment models. You've got to engineer this for a lifetime. You really need to—or at least a few years—in order to see the return in better health and in lower cost. But I'd like to think we've seen a bit of turning of the corner in that certainly the CBO associating use of medications with total cost of care, in seeing very pharmacy savvy kinds of programs like Jon represented, which is connecting this to total cost of care. So, Sarah, I guess I would say if I were like congressional staff and I saw the likes of me coming in right now, what I would be asking for is show me things that may not even have the term medication adherence on the top of the briefing but show me something that is going to give this lift to adherence, even in a fairly modest, mechanical way. Show me something that contributes to optimization of the overall regimen and let's continue to package those things together as we move forward.

JONATHAN BLUM: So, two thoughts. The first thought is that when pharmacy benefits are separated from the core medical benefit it's very challenging to coordinate the care, to find members that can benefit from programs, programs where you diffuse the Part D benefits, say, to multiple plans, where the PCP can't see the total picture, that's very hard to bill these kinds of programs that can coordinate care.

The second thing is, there are a lot of vendors out there that are selling apps and they're selling products and they're selling systems or technology to get people to comply better with their medications and we've found that people themselves are very loathe to sort of hear direct marketing campaigns from a health plan or a PBM or a technology company. They want to talk to their doctor. They want to talk to their care manager and so, when the doctor's involved, when the care manager's involved, to really talk about what's creating the barriers, that has the most impact. And we feel that really trying to link these programs back to the PCP, to link pharmacists back to the PCP, back to the care management core, that's the best way to engage members. They don't respond to their health plan. They don't respond to mail. They don't respond to marketing campaigns. They respond to when their doctor says, Jon Blum, you need something, or their care manager says, here is a tool that can help you better comply. That has the most traction.

DR. MARIE BROWN: Three points. One is, and I think Sarah, you mentioned this, that there's a medication synchronization act or perhaps many of you are at the state level or maybe it's percolating up to the national level, but I'm always haunted by Mildred in Chicago, my 92-year-old patient, who is on 10-12 drugs and I try to get all of her medicines to be filled on the same day. And she said, "Well, I really don't mind driving to the retail pharmacy every day." She was going 12 times out of 30 to get her meds because they all came due on a different day. Now, that's fine except in January in Chicago. You don't want to be on a road when Mildred's out there, you know, when it's snowing. So, it is a real problem and, by design, with some of the—and my colleagues up here at the dais will share with me, but it is a challenge because when I called the pharmacist, sometimes I'm told that we can't do it, we can't get them in phase. We can't synchronize them because the insurance companies won't allow that. So that is a, in my mind, a CEO to a health plan, that of the people in the room, that policy to get them into phase. So one patient on 10 meds, they all should come due, all this refill consolidation, on one day. And 100% consolidation is all the meds come by mail 90 days.

The second is, I worry about – we worry about, as internists, is that when everything's tied to value based care we worry about cherry picking. So the patient with mental illness and social and economic challenges, and they're A1C is completely out of control, if it's tied to a provider or the plan's reimbursement directly, well are we going to go that extra mile? They usually have literacy issues so they show up on the wrong day. They don't take their medicine and their blood pressure, their A1C is wildly out of control, and if that's going to, in essence, at the end of the day harm the bottom line because we're going to get dinged for not having our A1C's and our diabetic and our blood pressures in control because that's the metric we're held to, there's a misalignment. We have to go a little further to stay open a little later when the bus is late and that person needs to come in. We need to maybe develop some metrics where getting the A1C from 12 down to 10 is rewarded more than from 10 down to 8, or 8 down to 6, because we know we have a bigger input there.

And the other thing, when it comes to cost, is if our patients aren't taking the first line drug, in diabetes motorman, which stands alone and it's ridiculously inexpensive, we reach for the second, third, or fourth when, in fact, they weren't taking their first

medicine. But there is no advertising about that first medicine. The patients don't hear about it. So we're losing a tremendous amount of opportunity reaching for that second, third drug that is so expensive when those drugs don't work as well as the first line drug, which is generic and much more effective and incredibly inexpensive.

So, those are some policy issues I would challenge us all with.

WILL SHRANK: I'd love to quickly respond to two things that Mary said that I just couldn't, well, I couldn't agree with you more. So, first around the fact that for our most important chronic condition that we're managing today, there's almost an entirely generic formulary. There are very few patients with diabetes, with heart failure, with heart disease that do not have some sort of extenuating circumstances that should be treated with anything but generic medications that generally cost a couple dollars a month. We see patients, very frequently, that medication gets intensified to these far more aggressive – well, far more expensive but no more effective medications on a very frequent basis and one of the expectations is not to demonstrate that these patients have been adherent the other meds in the first place. This issue is going to be a really big issue in the near future with the PCSK9 medications to treat cholesterol. So we've got a great class of medications to treat cholesterol, the statins have probably saved more lives than any other class in history, they're now, the majority of the statins are available as generics and they're very inexpensive. And there's a new class of medications that, while we don't have the full outcome data available yet, there's clear indications that these PCSK9s, which are injected monthly, meaningfully reduce LDL cholesterol but at the cost of somewhere \$14,000 or \$15,000 a month. So. Let's say your patient has not been adhering to their statin. Come in, and their cholesterol isn't well managed. What are we going to do? If we, as a society, every one of those patients, we start a PCSK9 we're in big trouble. We can't afford that. And it's not necessarily the best thing for the patient. And it's the idea that we can start to be really critical about who has truly failed one therapy before stepping to another therapy I think is going to be essential in the near future for us to be able to be fiscally responsible about how we deliver drugs to patients.

I also wanted to add that, in terms of synchronization, it's true that some have had difficulty. You know, it's one of the nice things about working for a big company like CVS is that we've been able to sort of leverage a whole lot of lawyers to talk to the state boards of pharmacy in every single state and all the different payers across the country, so we've been able to implement, really without exception across the country, a synchronization project that any patient walks in and wants their medication synchronized they can get that at CVS. I'm certain others will do it and I'm certain others will figure out ways to deliver that kind of service but, in the short term, if that's something that somebody needs it is available.

And I wanted to ask a question both to Raja and to Jon. You both spoke to the role of the pharmacist and the pharmacist is this uniquely trusted partner in the process of medication delivery and education. They can play roles in a whole bunch of different ways. They can be the dispenser at the pharmacy. Some, increasingly, there are pharmacists that are working in the clinic as part of a patient-centered medical home.

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There's a whole host of different ways that pharmacists can be part of the solution. I wanted to hear your thoughts about where you think the pharmacist fits in and how do you think the pharmacist ultimately—what's the sustainable model for the pharmacist? You know, pharmacists will do a lot for free because they think it's the right thing to do, but if you're running a big company and you have lots of pharmacists what's the model that allows pharmacists to be most supportive of your goals and your needs?

JONATHAN BLUM: Well, the model that we're trying to build is to build a close partnership back to the PCP and so most practices that are in our PC MH program are small. They're independent physicians. There may be one person working with other physicians and other offices, or a 2-person office, or a 5-person office. They don't have the resources as a large integrated practice to bring a pharmacist on site. What we hear from our physicians is they need someone to talk to. They need someone to consult with. They need to have a trusted relationship with the pharmacist back to the PCP, particularly for patients who are challenged with multiple chronic conditions or rare conditions and so we're trying to leverage our CVS partnership basically to be that add-on staff to the physician office. We pay for that comprehensive medication review in order to prescribe value to it, but the PCP, the one that refers the patient to the comprehensive medication review, we don't refer. So it really has to be a partnership. And what we see, really, is the model going forward, is to bring that partnership and to use our relationships to build capacity that a small PCP practice wouldn't have the capacity themselves to do.

SARAH DASH: Thanks. And we actually had a question on a green card about PCP practice capacity, so maybe Raja if you answer the question, if you could maybe address that and how the other team members fill in and then we have a brave soul at the mic, so we'll get to your question, sir.

RAJA ZEITANY: A little bit about the pharmacist's role and how the pharmacist can fill in. You know, traditionally pharmacists—still to this day—many states are recognizing pharmacists as direct patient care providers and can be reimbursed for their services. CMS has not taken that move and doesn't have anything in place that pharmacists get reimbursed for professional fees and that's kind of been a hindrance to advancing the profession forward in this arena. Because when you are running a big business and you have all these pharmacists it's very expensive to put them in a clinic to manage these patients' medications when they're not getting paid a professional fee for them providing that service. So you would use MP's or PA's to man these clinics because they were actually getting some professional fee. And most of the studies I've been involved in, we have clearly demonstrated the value of a pharmacist managing these clinics. There was a recent study, I think it's out of Chicago, about a pharmacist managed congestive heart failure clinic compared to a physician managed congestive heart failure clinic and the readmission rate was 30% lower with the pharmacist-run clinic, so there's definitely – there has to be some regulatory changes that allow for that pro fee, to move that kind of imaginary hurdle. But then we also need to go to that patient centered home where we have an opportunity where the physician, the pharmacist, all the other healthcare providers are really managing that patient's care. And I think somebody mentioned early the journey, and I think what we have to do is modify the patient journey in such a way

where this doesn't require referral. When a patient has 10 meds and they're over 65 years old, or they have certain kinds of very high risk meds, it's a mandatory referral to that medication therapy management clinic. The investment, you saw the return, it's astronomical. So just modifying that journey to allow those types of activities to be integrated into their patient's healthcare delivery will, I think, help change the trajectory.

Just very briefly, regarding the PCP, PCP's are at capacity. We're asking them to see one patient every 15 minutes. How are they going to explain their medications? So, having another profession that's well versed in this topic, offloads some of the responsibility off the PCP to allow them to do what they do and then let somebody else who knows about the drugs take care of the drugs for them.

SARAH DASH: Thanks. Do you have a question?

KEN FEINGOLD: Ken Feingold from ASPE and HHS. A lot of the research has focused on people with Medicare or with commercial plans who have constant coverage but we've had a tremendous increase in the number in the field with coverage the past [unintelligible] Affordable Care Act. I was wondering if you were aware of any research that's looked at the impact on adherence as people move from uninsured to insured, or if you've seen any changes in adherence in the last couple years, particularly in states like Illinois that have expanded Medicaid?

WILL SHRANK: I can speak to that a bit. Not from the most recent expansion with the Exchanges, but when the Part D program was first implemented there were a number of studies at that point that really looked at what happened to patients when Part D was implemented and when patients who were previously uncovered suddenly had access to coverage. There are a broad number of studies that all show the same thing. A) Patients fill more prescriptions; B) they fill more prescription for very, very high value as well as some lower value services; C) their health is better. We see reductions in health services utilization costs. So I think it's really been, the Part D experience, has been widely recognized as a real success, that this was an expansion of coverage that was less expensive than people thought. It wasn't perfect. There was a lot of confusion and disappointment around the donut hole which is now progressively being closed, and there's no question that when patients did hit the donut hole that adversely affected their adherence.

In general, this was an opportunity for patients to get the drugs that they need that they were unable to afford before and, in general, they were healthier as a result. And actually, we've met before, so if you e-mail me I have a whole bunch of references.

JONATHAN BLUM: So, two things to add to those comments. The first is, we've seen, for those folks that have come into the Exchanges, tremendous need and so the folks coming into the Exchanges, they use more drug benefits than those that have a similar health status so there's definitely a pent up need and pent up demand. The challenge is that we're also seeing that folks who are joining plans to the Exchanges are changing coverage rapidly. They go to Medicaid. They get employed. They go to a large group.

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The notion, I think, that folks joined the coverage through the Exchanges that will have stable coverage, I think is being challenged by the data. Folks are moving, folks are changing plans, they're going on Medicaid, they're joining different companies, getting different coverage. Well, that's going to challenge the kind of programs that we're talking about. It works out when you have continuity of coverage, continuity of data systems, continuity of providers and I think the experience to date shows tremendous need, tremendous demand but not stable coverage with people, due to life circumstances, changing plans, products quite frequently.

KEN FEINGOLD: Thank you.

SARAH DASH: Thanks for the question. So just a follow up on something you said, Jon, when you separate out kind of a pharmacy benefit from a medical benefit and what happens. I'm sure, as many people in the audience know, in the last few months CMS announced a new demonstration project for Part D medication therapy management and I'm wondering if anyone on the panel has comments about that particular demo project. What are some of the things that it's trying to do to better align the incentives and are there things that, in the per D plan world, is that going to help to sort of get the incentive aligned, get the data aligned, and get the programs aligned, because we remember the Part D plans also don't really have jurisdiction, if you will, over the physician offices or other kinds of things. Thanks.

JONATHAN BLUM: For CareFirst, some CareFirst members don't have the CareFirst pharmacy benefit. Their employer has chosen a different PBM provider, different pharmacy benefit, so all the programs that I described don't apply to those CareFirst members whose company has chosen a different pharmacy benefit manager. So, it's vitally important to have the data, to have the claims information, to feed it back to the PCP so they can see the complete picture. The Part D program has the same challenge, obviously, with 40 or 50 Part D plans providing drug coverage to members in a different given service jurisdiction. But these are solvable issues. I mean, you can share the data, you can create mechanisms to help the PCP to help the patient better manage, and so we have to solve that and I think they're seeing this demonstration, though I haven't studied it, it sounds like it's in the right direction but until we can figure out how to link Part D benefits back to the overall medical benefit we're not going to be able to implement these kinds of programs.

WILL SHRANK: We'll give Tom the last word on this, but I'm sure you have a lot of thoughts on this.

We are the nation's second largest Part D plan and we are excited about the idea that there's a model now that gives us the opportunity to put some skin in the game, if we're able to actually meaningfully improve adherence and meaningfully improve the way patients are taking their meds, and we can reduce Part A and B costs. We would like to have that opportunity, that opportunity to be more aggressive, to be more innovative, to be able to try a broader array of services and, if we are able to be successful, to be rewarded for them. So, for us, this is a really unique opportunity to prove that what we're

doing, the programs that we've developed, the services that we've put into the marketplace, that our ability to partner deeply with providers, with health systems will allow us to deliver a higher quality care that will reduce total cost to care and that we'll be able to reap some of the benefits of the value we produce. So we, as a large PBM, as a large Part D plan, are excited about participation. And there are a couple things about the model that are worrisome to us in terms of the benchmarks per total cost of care reduction that seem maybe overly ambitious, but nonetheless, we think in concept that this is going in just the right direction.

TOM HUBBARD: And Will, I don't know what folks like you and others are out, sort of spec'ing out right now to respond to this because responses will go to CMS early in the year, I think, right? In 2016. But I think, again, to build on what you said, what seems particularly exciting about this is it's a pilot in which CMS is going to incentivize this 360 view of the patient that Jon's been talking about, you know, merging data—medical data and the pharmacy data so that you can get a more complete picture of the patient. And it's also going to be an opportunity to use the kind of predictive analytics or basically use data in advance to identify patient populations and then design intensity of services around particular populations and their particular needs and this is just, you have to think, essential to proving out the cost effectiveness of these services, certainly in Medicare where all this is ultimately, if it's going to be scaled up, it's going to meet a CVO test, it's got to show a contribution to total cost of care again.

So, I know there's at least maybe a couple of Medicaid experiments around the country that are doing some kind of version of this. I haven't kept up totally with what North Carolina's been doing. In Community Care of North Carolina, which did get a major CMS award to do their version of, call it, enhanced pharmacy services which the plan was to actually offer some really substantial dollar payments to community pharmacists to handle particularly complex patients. I think hundreds of dollars, you know, instead of the free Brown-Bake review where you never know what's going to come in in that brown bag and it's, as Raja said, it's sort of just hard to plan for. This was something that was going to allow some rational forecasting of the kinds of patients that need help, tailor the service around it, provide adequate financial incentive around it, and I know there's a similar experiment in Minnesota in a Medicaid ACO, in southwest Minnesota, doing this, but I think this experiment which is going to launch in 2017 should be a way to really prove out these principles now and really make medication – another step towards making medication management, medication review, a more serious clinically meaningful activity.

DR. MARIE BROWN: Two quick things, and I think that mentioning, as my receptionist did, the least formally educated woman on that video, that it was her idea. She changed medication adherence in our office and we talk about a team-based care. She said, when I called the patients for their appointments the next day, remind them to bring in all their medicine, even the ones they're not taking. Wow, when you said that they just brought in shopping bags. They were coming in the mail but they weren't taking them.

So, I think the team-based care, the Brown-Bake review is critical. There's two other quick issues. One, ARC is doing a program with Gordy Schiff on indication-based prescribing, which I think has a tremendous amount of benefit for health literacy. So if the medicine that I write I put chlorthalidone every day for blood pressure control, so you put the reason why they're taking it on, and it should be on that label, especially when the appearance of the medicine is going to change every time you get it refilled. So, metformin every day for diabetes, or sugar control, whatever. So, putting the indication on there for major chronic illnesses would be huge. I think addressing this trademark issue, especially with asthma, the UK decreased admissions because they got rid of the confusion about which inhaler to use to control their asthma because they were all different colors. And so, the UK said, well why don't we just make all the rescue inhalers one color and all the prevention inhalers another color. It made a lot of sense and it decreased admissions, readmissions for asthma.

And, lastly, the length that I can write a prescription will vary by state, so some states it's 12 months, some states it's 15 months. It's very difficult to make sure, if I can write a prescription for only 1 year, to make sure that on September 12th in 2016, that person comes back on September 12th. If they don't there's no wiggle room. There's no opportunity. It's impossible to get the same appointment on the same exact day year to year. So states that have embraced 13 month or 14 month or 15 month prescription for these chronic meds, in saying to the patient you need to be on this for the rest of your life, which we don't usually do for a variety of reasons, is important. So those are two policy issues that I think we could address.

TOM HUBBARD: Can I hit on that? And I'd be curious as to the opinions on the panel on that. So, something like indication-based prescribing, and I know it's still being studied and the evidence base is not entirely firmed up, but to me that's another example of one of these, maybe even modest, steps that fit into the whole mosaic because hypothetically, indication-based prescribing not only gives a message to the patient, it gives a message to the pharmacist downstream, and that pharmacist may be in the best position to say, you know, you're on metformin for diabetes but I don't see any ACE's and ARB's. I don't see any cholesterol meds. I don't see any hypertension meds here. Are you sure you haven't been prescribed for that? And maybe that's the trigger for the pharmacist to call back to the doctor and say I think there may be gaps in care here and maybe we should address this. So, all these things can add up in a way and if they become more standard of care or standard business practice could add up to pull up all these populations.

RAJA ZEITANY: That is absolutely correct. All these little things add up and eventually shift the paradigm on this and I think it's all these little steps. We have to investigate them all and put them all into play. There's no one size fits all solution for this and I think the more we can come up with the better the final outcome will be.

SARAH DASH: Well, that's a great note to end on. So I would like to thank our panelists and hope that this problem is solved in the next 35 years because I just realized

I'm going to be on Medicare by then. So, fill out your evaluations if you haven't already and let's give our panelists a round of applause. Thank you.

[Applause]