

THE BROOKINGS INSTITUTION

DISRUPTIVE INNOVATIONS IN DIABETES CARE FROM AROUND THE WORLD
LESSONS FOR HEALTH CARE REFORM IN THE U.S.

Washington, D.C.

Tuesday, April 7, 2015

PARTICIPANTS:

Welcome and Overview:

ALICE M. RIVLIN
Leonard D. Schaeffer Chair, Health Policy Studies
Director, Center for Health Policy and Senior Fellow, Economic Studies
The Brookings Institution

ROBIN OSBORN
Vice President and Director, International Program in Health Policy and Practice
Innovations, The Commonwealth Fund

DISRUPTIVE INNOVATION IN DIABETES: IDEAS AND OBSTACLES FROM AROUND
THE WORLD:

Moderator:

KRISHNA UDAYAKUMAR
Head of Global Innovation, Duke Medicine

Panelists:

MANUEL BOSCH
Deputy Manager, Ribera Salud Hospital System

ZEENA JOHAR
Founder and Chief Executive Officer, SughaVazhvu Healthcare

RICARDO MÚJICA ROSALES
Executive Director, Carlos Slim Foundation

ACCOUNTABLE CARE IN THE U.S.: INNOVATIONS AND SUPPORTING REFORMS:

Moderator:

MARK McCLELLAN

ANDERSON COURT REPORTING
706 Duke Street, Suite 100
Alexandria, VA 22314
Phone (703) 519-7180 Fax (703) 519-7190

Director, Health Care Innovation and Value Initiative
Senior Fellow, Economic Studies, The Brookings Institution

Panelists:

STEPHEN FITTON
Medical Director
State of Michigan, Department of Community Health

GREG LONG
Chief Medical Officer, Thedacare

JOSÉ PEÑA
Chief Executive Officer and Chief Medical Officer
Rio Grande Valley ACO

CHARLES E. SAUNDERS
Chief Executive Officer
Healthagen Population Health Solutions

IMPLICATIONS AND NEXT STEPS FOR TRANSFORMING DIABETES CARE IN THE
U.S. AND ABROAD:

Moderator:

ALICE M. RIVLIN
Leonard D. Schaeffer Chair, Health Policy Studies
Director, Center for Health Policy and Senior Fellow, Economic Studies
The Brookings Institution

Panelists:

AGNES SOUCAT
Director, Human Development, African Development Bank
Lead Economist, World Bank

MARK McCLELLAN
Director, Health Care Innovation and Value Initiative
Senior Fellow, Economic Studies, The Brookings Institution

KRISHNA UDAYAKUMAR
Head of Global Innovation, Duke Medicine

* * * * *

P R O C E E D I N G S

DR. RIVLIN: Good morning and welcome. I'm Alice Rivlin. I have two claims to fame this morning. One is, I have diabetes, and well under control. And the other is that I'm the director of the health policy center at The Brookings Institution and I would like to welcome you to what promises to be a very interesting morning. I welcome you on behalf of The Brookings Institution and The Health Policy Center and the Economic Studies Division. Our subject today is Disruptive Innovations in diabetes care from around the world -- Lessons for healthcare reform in the United States. We're sort of arrogant in the United States. Sometimes we think we can't learn much from the rest of the world. Actually we can learn an awful lot. Much of the rest of the world, in part, because they have less resources, are doing things that we're just sort of getting around to doing. So this is a moment of sharing information across very widely disbursed borders. And I want to thank our speakers who have in some cases traveled from a great distance to be here.

Before we get started, a few brief housekeeping announcements -- we are videotaping this event today and broadcasting it on a live webcast and we understand we have quite a significant audience out there, so speakers, the people you are speaking to are not all visible. A full recording will be available on our events page within a few days. And to ensure the quality of the recording, we'd like to remind you to turn off your cell phones and please get your questions ready for our Q&A sessions, and those of you who are joining us in the room, we will get you a microphone so that you will be well recorded. Those of you who are joining us virtually, we would invite you to participate by sending your questions using the hash tag @globalhealth. We will also have a time keeper in the front row and she's going to keep us all on time.

With that, I have the pleasure of introducing Robin Osborne, of The Commonwealth Fund, to open our event. I'd like to thank Robin for being here and also, to help, to thank The Commonwealth Fund, not just for their support of this event, but for

leadership around the world in improving the health system. Robin is a Vice President and Director of The Commonwealth Fund's international program for health policy. She has responsibility for the Fund's annual international symposium on health policy. In addition, she serves on the editorial board of Health Systems in Transition, and it's my great pleasure to welcome Robin to give us a little more overview of the day. Thank you.

MS. OSBORN: Thanks very much Alice for that kind introduction. Good morning, and it's a great privilege to be here with you today. And I just have to say, I am thrilled to see the portfolio of work that's on today's program. On behalf of The Commonwealth Fund, our tremendous thanks to Mark McClellan, for his visionary thinking about health reform and accountable care organizations as a way of transforming our healthcare system to all of our country speakers for sharing their experiences with us today, and to our U.S. health system leaders, for helping us cross walk the lessons learned globally to our efforts here at home. Many of you know The Commonwealth Fund. We're a private foundation established in 1918, with the mission of supporting a high performing healthcare system that expands access to care, improves quality of care and achieves greater efficiency. We're particularly concerned about and passionate about improving care for the elderly, for the low income and uninsured people, minority Americans and children. Integral to our work is an international perspective. And our international program and health policy and practice innovations aims to spark creative health policy thinking and exchange across countries, and to build the evidence base through cross national comparative research, patient and physician surveys, benchmarking, health system performance, deep dive case studies, to understand what works and what doesn't across countries. And while every country healthcare system has a unique historical and political context and they may be financed and organized differently, they are all being driven to get value for money. And there's a striking convergence in their goals.

For the United States, that theme, value for money resonates. We spend more on healthcare than any other country. As The Fund's President, David Blumenthal says, if there was an Olympics for healthcare spending, the U.S. would sweep the gold, silver and bronze medals. But we generally don't get the best outcomes and often rank at the bottom, certainly in the fund surveys, when compared to 11 other industrialized countries. And while we have some of the best healthcare in the world and you'll hear from some outstanding and world class U.S. health systems today, on average, cross national data shows room for improvement. We're hopeful that with the ACA and the delivery system and payment reforms it supports, we'll start to see some of the gaps in performance close. And we already have as for example, through financial penalties, which help drive a reduction in hospital readmission rates.

Since 1998, The Fund has held an annual international symposium in Washington, bringing together health ministers and senior government officials from 11 countries around a theme. This past year, it was achieving a high performing healthcare system for high need, high cost patients. For the first five or ten years that we did this, when health ministers outlined their challenges their systems face and their policy agendas, even though they all spoke English, it was as if each was speaking a different language. The problems, the strategies, even the words they used had pretty -- there was little commonality. What's now striking, stunningly so, is the amount of convergence, particularly as we focus this year on high need, high cost patients, often frail, elderly, with multiple chronic conditions, the patients that we'll be hearing about today. This year, health ministers shared a very common vision for their healthcare system. They were all aiming towards an integrated healthcare delivery system that provides high quality seamless coordinated care for chronically ill patients, that empowers and supports patients and their care givers where information follows the patients between providers across sites of care and a system that is innovative in using data and performance feedback to continually improve. They not only shared a common vision, but they also

shared strategies that sounded remarkably similar and it sounded like they were all pretty much using the same toolbox. Patients entered medical homes, bundled payments, risk sharing arrangements among payers and providers, payment based on quality metrics, not volume. But what's so interesting is that because each system is different, how they use those tools, and how each system implements these kinds of transformative changes is different. And that's why today is so incredibly timely and exciting, to have the opportunity to hear about the different country models, how they work and to learn from each other's experiences real time. So again, many thanks to our distinguished panels, Brookings Institution and the Merkin Family Foundation for their sponsorship and collaboration and for today's wonderful program. (applause)

DR. RIVLIN: Now we'll hear from Mark McClellan.

MR. MCCLELLAN: Alice, Robin, thank you for your opening comments. I want to thank all of you who are joining us here today and all of you who are joining us online as well. I'd just like to add my appreciation to this port for The Commonwealth Fund and not only for this event and some of our related activities I'm trying to drive forward -- effective ways of improving care from healthcare organizations within this country and around the world that are starting from very different places in terms of how they're delivering care and how they're paying for it, how they're making it sustainable, but also for that vision that Robin described. The Commonwealth Fund has been working on this for a long time. We were just talking this morning before the event started about how the world does seem to be changing, though. Recognition that the traditional focus on health services is probably not enough, that to help healthcare providers work with patients in new ways to prevent complications of illnesses and get care right the first time, requires new methods of financing and new methods of patient engagement that really nobody around the world has quite solved the way to address. And we do have different philosophical approaches to the role of government in healthcare delivery in different countries. We do have very different cultural starting

points, but I think you'll see today that the degree to which there are some common challenges and common ways to learn about experiences in addressing those challenges is actually pretty striking. So I do want to turn to that but also want to give -- spend a minute to thank the Merkin family foundation as well. As Robin mentioned, their support for our efforts here has been critical. It's come through the Richard Merkin initiative on payment reform and clinician leadership, which has really been all about engaging clinicians and finding leading ways to not only think about reforming care in their own practices but to be leaders in payment reforms that can be implemented at the local level, working with health plans, working at the state and national level, to make these kinds of reforms and their practice more sustainable so that they really can make ends meet and deliver the kind of care that their patients would like to see. And all of this, this initiative on clinician led healthcare reform, this emphasis on some of the global opportunities that are emerging for common progress on improving care and avoiding unnecessary costs, all of this has come together in events like the one that we're doing this morning, by focusing on diabetes.

As you all know, diabetes is a major public health challenge. It affects ten percent of Americans, including our Center for Health Policy Director here and nearly 350 million individuals worldwide. About one-third of those individuals live in the countries that are represented here at this event, and the case studies and reports that we'll be presenting today in India and the United States and Mexico and in Spain, there is a substantial -- in fact, disproportionate burden of diabetes facing the populations. These are countries that are in very different places in terms of where they are in development, in terms of many other issues as well. They just highlight that the similarity of the underlying challenges facing all healthcare systems around the world today. And in all of these systems, you're going to hear about how some of the traditional ways of supporting healthcare, whether it's through publicly financed budgets for hospitals and individual clinics or whether it's through fee for service medicine, it's focused on traditional volume

approaches to supporting healthcare. What you're going to hear is that these are not getting us to where we need to be in terms of addressing the risk factors for diabetes, identifying patients who have these risk factors early, helping them make changes in their diet, their lifestyle, to better self-manage their condition, helping them use proven effective medications to get the diabetes under control and helping them get coordinated and effective care from healthcare providers when they need it, as you'll hear. And as you've probably seen the case studies, there are significant gaps all over the world in dealing with these features of these important features of diabetes, from the standpoint of screening to ongoing behavioral management, to effective use of medication and dealing with the complications that can't be prevented. So there is an urgent global need for innovative care models, for disruptive innovations that take advantage of new technologies, both within healthcare and beyond healthcare, to change the way that care delivery works for this very important condition. And along with that, a great need as I think you'll see, for new ways of financing and supporting this kind of care, so that clinicians can have an easier time of working together with their patients and maybe delivering care in new ways to get better outcomes and lower costs. You're also going to hear about new ways of engaging patients to support reforms and care -- ways that rely on patients to make choices about what might be the best care for them as in some of the examples in India, for example, and how they can take steps to be more active and effective partners in preventing the disease complications. Now these disruptions in care delivery mean shifting away from traditional ways of engaging patients, traditional ways of delivering care that might be provider centric to focus on much more patient centered care, much more individualized care. These challenges though, in implementing these kinds of reforms are being met in a number of ways around the world, and one of the questions that we want to ask today and raise in our discussions is, what can we really learn from each other, since there does seem to be this similar set of underlying challenges and underlying opportunities for improving care. There seem to be some

really interesting and promising ideas being implemented for both reforming care and supporting these kinds of disruptive innovations in healthcare delivery. How can we make more rapid progress together? How can we achieve some of those goals that Robin Osborn was mentioning earlier in terms of getting to high performing healthcare systems all around the world?

To do this, we're going to showcase five global case studies that are examples of effort to disrupt diabetes care and address some of these challenges in care delivery, improving outcomes for this very important condition. We're going to hear from the Carlos Slim Foundation from Mexico. They're supporting an innovative program, a disruptive program called Casa Lud. We're going to hear from SughaVazhvu Healthcare in India, rural India, maybe not the place you think of for innovative approaches to care delivery, but it's happening there too. From Ribera Salud in Spain which has turned around a traditional healthcare financing model there to really increase the emphasis on caring for patients with diabetes and other complex conditions more effectively. Thedacare Complex Care in Wisconsin actually is taking some similar steps to what we're hearing about in other places around the world, like Ribera Salud. And the Rio Grande Valley ACO in South Texas, implementing some important new steps to achieve these same goals, so a great diversity of patient populations, geographic locations, initial financing mechanisms and the like, but some very common challenges that all of these organizations are seeking to address through disruptive innovation and supportive financing and policy changes. While we're focusing on diabetes care here, and the lessons for here in the United States and around the world, I want to emphasize that as you'll hear from many of the participants that diabetes can be viewed as kind of a leading condition, many of the initiatives that you're hearing about today focus on diabetes but also on other conditions as well, conditions that often go along with this particular chronic condition and conditions that can respond to the same kinds of reforms that you're going to hear about focusing on diabetes care. And we're going to focus on both the reforms

and care delivery and the reforms in payment and policy to make those disruptive innovations sustainable. Hopefully we're going to generate quite a discussion here today in the room. I want to again call out to those of you who are joining us online, that if you'd like to contribute to the discussion as well, it's hashtag #globalhealth and we'll try to get your comment in the discussion too. So with that I'd like to move us right into our first panel and ask them to come on up while I'm introducing them. I want to start out by introducing the moderator for this panel, my good friend Krishna Udayakumar, who is the head of global innovation at Duke Medicine. Come on up, you got to get microphones on, some of them. I'm going to cover the time here for just a minute. Krishna at Duke Medicine is responsible for the development and implementation of global strategy as well as business development for Duke Medicine, through Duke Medicine Global, Krishna works closely with leaders across the medical center and really across the world to expand Duke's international activities and global partnerships across translational and clinical research, global health, education and training, healthcare delivery, healthcare management and other areas. I've gotten to know Krishna as well through his leadership as the Executive Director of the International Partnership for Innovative Healthcare Delivery, which is a non-profit organization affiliated with Duke Medicine, that has had support from the global, the World Economic Forum and other international collaborations, to help innovators scale and replicate successful approaches to healthcare delivery solutions. There's a great wealth of experience and information there on disruptive innovation in healthcare. IPIHD has worked with individuals from academia, industry, foundations, government, to facilitate the growth of transformative models of care and I have to say we've really enjoyed the partnership with them, emerging partnership with them here at Brookings where our focus has been on policies that are intended to support exactly the kind of disruptive innovation that IPIHD has led. I think Krishna's going to introduce the rest of the leaders on the panel. I would like to introduce

all of you to -- Alise; you have the time cards right there? Wave to Alise. And we'll get started right now. Thanks Krishna.

MR. UDAYAKUMAR: Great. Thank you Mark. And thank you Robin as well for your introductory remarks. I think you've set the context well. So why are we talking about diabetes today? You heard it -- it's a huge health burden in its own right -- 350 million people and growing rapidly. And beyond that, it represents the archetype for non-communicable chronic diseases more broadly that threaten the viability of many health systems around the world if not economies. So why innovation? I think not just in the U.S. as we heard about from Robin, but in many places around the world, there's this idea that we're not deriving as much value as we could from our health systems. That if we really could look at this around the axis of cost, quality and access, what someone called the triple aims, and use that as a framework for talking about what the promise of innovation is, that we could actually do better collectively. And then finally, why to look around the world? We know that there are shared challenges, many health systems look different from each other but there are many principles that really are more alike than different. And not only that, not only do we have to learn from our challenges and mistakes but there's huge value in actually looking at where the bright spots are, so what is working? And we can learn from anywhere in the world where we see models that are working and so over the next hour or so, what we want to do is dig a little deeper into some of the models that seem to be working, and learn from what they've done, and think about what we can generalize beyond that. And so joining me this morning, we have a great panel. We have Manuel Bosch, who's the Deputy Manager of Ribera Salud in Spain. We have Ricardo Mujica Rosales, who is the Executive Director of the Carlos Slim Institute in Mexico, and we have Zeena Johar, who is the Founder and CEO of SughaVazhvu Healthcare in India.

What I will do is ask each of them really to start by briefly describing what it is they do, what the innovation is, to give us context to then go a little deeper. Before I

do so, I'll point out, as others have, we want to make this as interactive as possible, so any comments or questions you have, please, along the way, send them via twitter to hashtag #globalhealth, and we won't be able to touch on all the details this morning, but there are case studies of each of these available outside and online. So let me first turn to Manuel. So tell us, for Ribera Salud and specifically the chronic plan, the complex care plan that you've developed there. What was the challenge that you started out to address and what is the complex care plan?

MR. BOSCH: Okay, thank you, good morning. First of all I would like to express my gratitude for the invitation. It's a great opportunity for us to be here and hear other perspectives. Well, let me begin a selection about how our health system on Ribera Salud, because you probably know, we're Spanish, we have a great national health service. We're proud of it. It's free, universal access, good outcomes, but of course, it has some weaknesses, the same as in the rest of the world. Maybe it will be of course, growing but just growing deficit, and maybe of course you make some reforms. In this context of reforms is where Ribera Salud was born. I think it was 15 years ago. And we are what we call a health care integrated provider and our model, for explaining our chronic care plan is based on mainly four tenets. The first one is PPP -- Private Public Partnership. We only work for the administration and with the government. The second one is capitated payment. Third one is integration between primary care and hospital or second care. And the fourth one is networking. Let me explain quickly capitated payment.

Well, as you probably know, we as a private contractor, we are receive a fixed sum from the government. It's not a risk adjustment fee, so we need to make the most worth of that money. But in return we are fully accountable of the health of our population. In our case we are managing four integrated health departments, about 700,000 people in Valencia, in the region of Valencia. And we provide those people primary care and the hospital. Well in capital payment, is the first important thing, maybe

the second important thing is integration model, for as the most important, just not the hospital, for at the most important is not primary care, GPs. For us, the most important, it's no debate; believe me, for us the most important is the fees. We want updated payment. We want the people to be as healthy as possible. Because the healthier the population is, the more revenues the company is obtaining. So to just bring all these things together, capitated payment, integration model, and in order to keep people as healthy as possible, we have developed what we call our Ribera Salud clinical management model. Sounds very good. And well, at a glance, we work on a schema of our population of health management with risk adjustment tools. We provide a specific care with specific pathways for each individual patient. We have a powerful (inaudible) so we can engage patients in their own health. We have a health profile. We have well-being programs. We have teaching programs in order they change the way they live, the way they eat, the way they buy food. We have also school programs. We have one self-development incentive program to align the work of our people between primary and hospital care. IT is an important role also of the (inaudible). They are leaders. Some of our case management for example are in charge of this area. And we think this is the greatest schema. Well I think we can go on later with diabetes.

MR. UDAYAKUMAR: Manuel, thank you. Seems to have a lot of connected parts.

MR. BOSCH: Yes, thank you.

MR. UDAYAKUMAR: So how have you learned over time and evolved that model as you understand each of the components of actually taking care of a population, and especially around how it applies to chronic disease management with diabetes?

MR. BOSCH: Yes, well, for us as a society, as I've said, the most important thing is keeping people healthy. So we, for example, we can show you one of the best of the breed experiences. We are managing, in the south of Valencia, the

(inaudible), we are there, accountable more or less for 300,000 people and we are providing specific case there. We are providing their health, so for example, we have developed there a full population health management. We are using IT's, we are using PRG's and other fiscal adjustment models in order to charge it and we identify the name or the surname, the ID, the social conditions. So there are diabetic people there. We are also enrolling them in a specific pathway and a specific care pathway, and well, also we have left, at the end of the process we have on a very very important, already powerful IT, analytic solution, not only to make sure costs but also quality outcomes and (inaudible).

MR. UDAYAKUMAR: Great, thank you. We'll dig deeper in just a minute. Let me turn now to Zeena. Tell us about the challenge you saw in rural India, first that led to your developing of SughaVazhvu and then how you evolved to this subscription care package model?

MR. JOHAR: Sure, that's a nice question. But I need two hours to explain this.

MR. UDAYAKUMAR: The two minute version. (laughter)

MR. JOHAR: First of all I would like to thank Mark and Andrea, you know, for giving us this opportunity and actually working so closely with us in developing the case study. I think the case study was a perfect build up to this session and I think they really add up as great resources, and to you for that wonderful question. So you know, just as a context, our enterprise is based out of rural India, practically a green field for organized healthcare. You have the unorganized sector which is available over there, which are primarily local practitioners who are providing medicine. So when we started back in 2007, we wanted to create an enterprise, and we of course had the regular challenges of not have doctors, bringing in technology, bringing in some organization. And over the last five years, we touched around 70,000 patients, who just came into our system, came into our system and left. And then we actually started looking at who were

these patients who were coming to us. You know, when you get started and you read about diabetes, you almost are told, oh, that's a lifestyle disease, rural India, they're still back and beyond, these are not conditions that touch them. To our surprise, the prevalence of diabetes that we saw across different geographies, in India, were very comparable. The disease burden of diabetes in urban centers, was very equivalent to the disease burden of the diabetes we saw in all of our geographies that we saw. So that myth was gone. And then we realized that we ran an (inaudible) of about nine connects, that's you know, facilities that are open from morning to evening, we do school programs, all of that. Patients came to us when they were sick, and then they kind of disappeared in thin air. And then we'd look at the kind of patients who come to us -- twenty to thirty percent of patients were patients who were coming to us for chronic care management, you know, from getting their blood values checked, for you know, getting the prescription if they didn't want to go to a hospital. And they came to us and depending upon how seriously they took their chronic condition, they came to us for a month, two months, and then they all disappeared in thin air. And that's very -- realize that you know we are touching these patients, they're coming to us, but then we lose them in thin air. And why were we losing them in thin air, you know? They were even willing to pay for what you were asking them to pay, so money was important, wasn't a deal breaker there. What we felt was really missing in the system was accountability. Who was really taking the ownership of the patient? The patient himself or herself, which they did for a short while, and then they get busy with their usual stuff. So as a healthcare provider, when we really wanted to provide community centered care, our conceptualization of really taking patient ownership was to bundle all the services that a diabetic patient would require, at the front end, and actually then bring in advantages that they would cherish, that they discussed advantage which is giving them medications not at the selling price but at the cost price and letting go of a 40 percent margin, whether it is doing home visitations for people who are not showing up, whether it is keeping a blood profile for patients, you know, who

would need regular check, whether it is really modulating your -- titrating the dose properly, to make sure that you are having these right amounts of (inaudible) when you get started. It's not only important that you have diabetes and you start popping a pill, but popping the right amount of pill is also as important. And those are things that kind of led us to our thinking, to say that we have around 10 to 15 percent of our population in the area that we cater, suffering from diabetes. How do I package and bundle services? Unfortunately we don't bundle actually hospitalization or insulin dependent versions of it, so it is very very basic, and like literally the first one inch of care that would qualify, so it is really the first touch point, but in that first touch point, the role of the physician, the role of the north, the role of the community, and actually taking a lot of ownership off the patient, is what we tried to do. We have around 200, 250 families enrolled with us today, as we speak, and as we work through, they're looking at the lessons that we are learning, many challenges that we face, and how we can really make this as a core value proposition and move away from our episodic care, of waiting for patients to show up and then they come, get some care and then they walk away. I mean that's a good model, but I think there are enough providers in the country doing that already.

MR. UDAYAKUMAR: Thank you. Now you're doing this entirely from the private sector?

MR. JOHAR: Correct.

MR. UDAYAKUMAR: It's a little different from the first model we heard about, which is really around selecting a population and a partnership between the public and private, so tell us about the challenges you see on the ground, including the role of the public sector as you see it?

MR. JOHAR: So the biggest challenge that I would say that we are managing our patient population -- so we actually have a relatively strong community focus. And we use a lot of technology. So for example, we will go out with mobile phone and actually do basic survey for the entire population including doing your uni-fasting

blood sugar values, and you know, doing your basic BP and body mass index, to get a sense of are you at risk, should you be checking yourself up for an additional level of testing. So we grade the population really well. And everything that I spoke about subscription care -- so when we grade the population, people will understand, oh, I am at high risk, oh, you know what, you guys help me diagnose my diabetes. So that's really great. But the ones who really sign up for our packages, are the ones who really know they're suffering from diabetes, who are spending a significant amount of money already, and look at our value proposition, unfortunately only as a cost saving instrument. The ones who are early in the game or are at high risk, continue to -- oh, so I see the end thing's up -- you know, flashing on my face. (laughter)

MR. UDAYAKUMAR: Keep going.

MR. JOHAR: But the ones who are like really early on in the profile, we are still struggling to convince them to start proactively managing their disease condition. They still like to watch. And then in the private sector, when you're paying out of pocket, when I as a healthcare provider go and tell them, you know, by the way, you're at high risk and this and that, and it's like, are you trying to make money off me? I don't feel any symptoms. You know, it is not impacting my productivity in any way. I feel perfectly healthy. You tell me my BMI is not right and my BP is shooting up. I need to do something. I'm not completely convinced. The public sector on the other side has that leeway, because they've been present in the geography for 60, 70 years and they can do a lot of stuff for free. They can actually, if you really focus the ones who are at high risk and have a lot more focus on prevention, then the private sector, who really has to go with the diseased lot and then move downstream. So that is what I would say is our largest challenge.

MR. UDAYAKUMAR: Thank you. Let's come back to that in just a few minutes. Moving to Ricardo. So tell us a bit about why diabetes is important to the Carlos Slim Institute and what led you to develop the Casa Lud support model.

MR. ROSALES: Thank you very much. Also I would like to start by thanking The Brookings Institute for this work, this collaboration we have been working on for the past months. It's been fantastic. Thank you to Mark, Andrea, Monica, all the people here. Also I would like to start a little bit on the context with Mexico as in the other cases. Chronic diseases are a really big challenge for our country. According to some measurements we are the leading country with the highest rate of pre-obesity and obesity. We're definitely the highest -- have the highest rate for infant obesity in the world. Also diabetes is accordingly a big challenge. The official number, the official figure is nine percent of the population has diabetes. Some studies show that it's up to fifteen percent of the population has diabetes. To treat all of these we have to do it from the public sector. This is the highest outreach that we think we can work with. And from the Carlos Slim Foundation, we have found a great partner with the public health system. I have to say also, it's a very fragmented system, what we have in Mexico. We have different institutions working in which the biggest one is the Ministry of Health, where there are around 12,000 primary health clinics and I think that's the focal point. And the model that we have developed is working around with these 12,000 clinics. Of course, the clinics, they provide for free meds and lab tests, et cetera, but they do it in a quite inefficient way, due to inefficiencies, corruption and so on. So that's one of the key points that we have been trying to work with. The model we have developed also, uses different elements in prevention. We talk about a proactive prevention in the sense of going out and reaching for the people doing systematic screening and not only doing the screening but referring them to the health provider, to the clinics, for proper treatment. We have developed very strong elements around technology. Some of them are already available in industrialized nations, but not so common for a context as ours. And what we have done is develop all these elements for a local context completely not from scratch, learning about best practices, but that they are adapted for the models that we need. The Casa Lud model is based on four main pillars. Again, the first one is doing proactive

prevention. We have developed a very easy model in which you can do screening in less than 10 minutes for basically hypertension, diabetes, in some cases also for kidney disease, dyslipidemia, et cetera, to do it, to assess the risk factor.

The second one is evidence based. This is manager through technical systems as I was mentioning, a set of systems that are integrated in order to go from -- to have information outside the health clinics, refer the people to the health clinics and do a continuous evaluation and follow up on what's the patient doing like. We also introduced systems for drug monitoring and lab tests. Discuss a component that's very important to us, that's transparency and accountability, given that the public health system was, how it works is that they have a per capita endowment for the patients they should be treating, but then there's no accountability on if actually the patients receive the lab tests and the medicines and so on. And the fourth element has to do also with continued medical education. That's not only for doctors, but for the whole team. It's online education that's very practical, very operational, that will go from the administrative team all the way to the specialists, so that everyone can know what it is that they should be doing.

The initial model we started working with it about seven, eight years ago. We did various pilots around the country with different states, and starting in 2013, the government launched what is called a national strategy against diabetes and obesity. It has different components from that, that has to do with regulation, effective health care preventive strategies, social education, and we are part, as a foundation of this national strategy. We helped develop all the indicators, develop some ideas on how treatment should be started, and we, on the operational side, the model is being implemented in a number of health clinics. We call them excellence -- Diabetes Networks of Excellence, and we're putting together at least one network per state, per one of the 32 states in Mexico. So far, we are operating networks in 20 of the 32 states. We're developing six more so we're mostly covering all the country. Through this network, a population of around 1.3 million people are served. And all this information is integrated into a

dashboard where you can follow up on how things are moving and have accountability. I'll leave it to this point for now.

MR. UDAYAKUMAR: Okay, thank you. And so all of you talked about this idea of measuring evolving accountability in some sense. So tell us -- let's take a bit deeper dive into that, and maybe I'll start with you and so what do you measure, and what is success for you and how do you -- how do you continue to evolve your model as you see challenges?

MR. ROSALES: The way we're measuring it, it's done in I would say, in three phases at this point. Number one, it's the implementation of the models, doing risk assessment. Each clinic has to have a goal, set of goals of people they have to screen for, outside of the health clinics in order to see the risk. The second part would be to start having people that were detected, get treated in the clinics, and the third one would be the outcomes. If you find someone with diabetes, hypertension et cetera, to have their indicators controlled, and especially for the pre-conditions, to get them back into a steady state, or even into a healthier state. What we find is treating a pre-diabetic versus treating a diabetic, it's 30 times lower, in the case of Mexico. So it makes a lot of sense from the cost side, for the government.

MR. UDAYAKUMAR: And where are you in terms of impacting outcome with this model?

MR. ROSALES: What you can see in the void is, it's really nice, because we're comparing all these networks that we're working with, with a set of clinics outside of the networks. And we've seen already some results. For instance, having diabetes and the glucose levels controlled, outside of the clinics, what you're seeing is around 15, 20 percent. In this network, it's going up to 30, 35 percent. Also, we're seeing initial results for this.

MR. UDAYAKUMAR: Great, so Zeena, what do you measure for success, and what have the challenges been?

MR. JOHAR: Well you know, there are different levels, so for example, if you are a diabetic patient who is enrolled with us, a level one is, are you complying with all the visits? So ask for our package. You know we have almost a chart that is given to you saying that you need to show up twice a month to a clinic. These are the medications that you need to take. These are the values that we will track for you. So level one is, are you doing what you're expected to do. Are you really complying to the chart that we gave you. Level two is clinical outcome, to say how are your values performing, whether we're looking at blood pressure, whether we're looking at fasting glucose values. We would like to introduce parameters like HBE1C and all of that, but we literally practice in the middle of nowhere, so we are figuring out ways in which we can do early interviews for these tests as well. Our level three which is primarily the litmus test for us, is to say, do these guys re-enroll with us, and is the enrollment percentage going up? Are we having new enrollments and are the ones who enroll with us coming back? That is really the litmus test for us, because if they don't -- because we are talking really about out of pocket expenditure over here, and if they don't -- if they're not willing to pass with their own money, clearly they're not seeing any value in what we are providing. And if we see a higher enrollment from the populations where they come from, clearly the word of mouth is working and people are beginning to see a value. Are there any larger population level outcomes that you've managed as of (inaudible)? I would say they are very early to start off with a population level outcome.

MR. UDAYAKUMAR: Right, sure. Fair enough. Manuel.

MR. BOSCH: That's a great question. That's because we measure almost everything. (laughter) For example, we can measure now how many patients we have in our different clinical groups, and how they move, from (inaudible) to more severe. We also have some type EAs related with the process, how many patients are enrolled in health programs, how many patients are using health tools, health portal, and of course we have an opinion on powerful IT solution to monitor outcomes, clinical outcomes, of

course, we prefer not to talk about costs. We prefer to talk about utilization of the results and the capacity, and of course we are now working also in that come of, what we say that the outcomes that patients to, that sort of outcomes that matters to patients. And they will step to new standards.

MR. UDAYAKUMAR: Of the three models we have, yours probably represents the most comprehensive approach, as a single provider. So what impact have you seen specifically around diabetes?

MR. BOSCH: Well we have some outcomes in our departments in (inaudible) in the south of Valencia. We have there measured costs and admissions and for example, we have compared our admissions, the utilization of hospital resources, comparing Ribera Salud, OECD and U.S.A. for example, we have 50 percent less diabetes long term complication hospital admissions than here in the U.S.A. and same with the OECD. We have 13 less lower extremity amputation than OECD and 60 percent less than here in the U.S.A., and in terms of cost, just in one minute, but the main area of cost allocation for us is outpatient. We treat diabetes in primary care with nurses with UV's and we tried these patients not to go to the hospital. And here in the U.S.A. I think every part of the American Diabetes Association, most of the main costs are hospitals.

MR. UDAYAKUMAR: Thank you. So impressive outcomes then, and you're able to track everything, which is even better. So let me turn to what I think a theme that all of you touched upon, which is this idea of putting the patient or consumer at the center, which doesn't always happen in many health systems and why has that been an important part and how has it contributed to your success and how do you have accountability to the patient or the consumer in the models that you're developing? Zeena, you spoke a bit about looking at re-enrollment. Anything you'd want to add to that about how you're really putting the patient centric nature at the core of your business?

MR. JOHAR: Well, I feel you're drifting a little bit away from asking the last easy questions. (laughter). Okay, sure.

MR. BOSCH: He's going to ask us in Spanish. (laughter)

MR. JOHAR: So talking about you know, keeping patients at the core, you know. If you look at India, India is a little bit different in terms of context as compared to every other country. You know, if you look at spending, we spend close to five percent of the GDP on healthcare and unfortunately off that five percent, less than one percent comes from the government. Everything else is out of pocket. Which means, literally every individual in India shops for healthcare. And when you're shopping for healthcare, that's almost always (inaudible) shopping. I'm sitting next to a physician. I'm sure he's nodding of course. You guys know nothing. (laughter) So you know why keeping the patient is really keeping the patient in the center is really important for us is to say that we need to echo the requirement of a patient and when you are looking for the requirement of a patient, and let's look at the diabetes patient in other geographies. Access is something that really means a lot to them, because most of the populations that we are talking about, you know, are really traveling quite a bit to seek their healthcare services. Now when a rural patient or a villager in India travels he almost loses one full day -- two hours of traveling, waiting in the doctor's office, coming back -- that's one day of wage loss for the person. Because we are not talking about families who have incomes which are all predefined and you know, they all have fixed salaries. They're almost all on daily income, other than the 20 percent who have access to good resources. So the opportunity cost and the indirect cost of seeking health care in our population is really high. So a value proposition which does not give them only a direct cost saving but really dramatically brings down indirect costs is huge for them. When you have an open heart surgery, the indirect cost is reasonable as compared to your direct cost, but when you're going for just your blood values being checked and for refill of medication, the indirect and direct costs are actually comparable. They're 50 indirect and 50 percent direct costs. So over here, you know how you really bundle is to say that I'm not only helping you

bring this down, but I'm literally collapsing this for you. And that is something that a patient truly echoes, you know, to say that okay, access is something I understand.

The other thing is to talk about quality. Now quality is very wishy-washy because you know, when you are talking about quality from the lens of a consumer or the lens of a patient, how at least -- I'm talking about an Indian patient, how Indian patients perceive quality is how quickly can they come back on their feet. Quality is not about you know, taking your time to get well, and for example, this is the biggest challenge that we have. If we feel that the patient needs antibiotics, to not start them on broad spectrum, but maybe start with amoxicillin kind of a simple antibiotic. And these are really tough sells, because most of these people, or most of the populations that we serve, have got antibiotic resistance because the pharmacy regulation in our country is kind of slightly wishy-washy, so you can get access to any medication that you want, anywhere. So if you guys need medication, tell me, I can get it for you. (laughter)

MR. UDAYAKUMAR: Your secondary business. (laughter)

MR. JOHAR: Two enterprises are tough to run. (laughter) So because of that, now sitting in this audience, you would say, yes, being compliance to protocols is very important. We should start with proactive care, and we should start with preventive care. Almost nothing works, because when you're serving a rural patient, he wants an injection, he wants either a steroid or a broad spectrum antibiotic so that he can flip back into action day two. And that's where we kind of almost constantly lose the battle on quality. So you can make a case on access. You can make a case on cost saving, on quality as a private care provider, ethics are on your side. It's really tough. If you let go of ethics, you're a very profitable venture but then you never join IPIHD. (laughter) So I think those are kind of the battles from the private sector. If you are the government and you can really be on the high chair and have a slightly different approach, but as a private sector provider, you almost have these forces fighting against you all the time.

MR. UDAYAKUMAR: Thank you. I think that's great insight from being active on the ground that's not visible to a lot of people who work just at a system or policy level. So Ricardo, how do you ensure that Casa Lud and all the clinics that you work with really all become more patient centric in their work?

MR. ROSALES: To us, again, it's a really easy answer in the sense that you have to do it as a patient center then and look for accountability. And that's one of the, again, that's a key element that we're looking for here, by working also with the government, besides the outreach, of course, the health of a patient. And it's not only the patient. It has to be in the case of the Spanish case, we're looking about the general population. You know, it's better to have healthy citizens than patients. The dashboard that I was talking about, it's public, anyone can get online on it. So that, we think is a game changer, on how you can do things. What we're doing there is, you have a different set of indicators in which you can compare how each clinic is doing on the goals that they set, so anyone can get there and see which one is doing better and then you have a contribution. You give the patients a voice and the citizens a voice. Also it's important to say, in Mexico we have the National Health Council, where every quarter, all the ministers from all the 32 states and the Federal authorities, they sit -- they go to a number of elements and they do all the planning for the health system, and we are able to go there to each one of these meetings. We show how things are looking at on the dashboard and how things are moving along. So that's a very powerful incentive in the sense that no one wants to see -- no state wants to be seen in the bottom of their indicators. So that's a way to move things around and create incentives to have a model that's sustainable and that they have to be reaching, achieving their goals.

MR. UDAYAKUMAR: Thank you, so transparency and benchmarking is key aspects of that work.

MR. BOSCH: Well for us, important I think is when we place the patient just in the -- or citizen in the center of the system, it's to say that for us, patient is too late.

We prefer to speak about citizens, because placing them in the right place means that we need to treat the people at the right moment, at the right place, at the right risk. And that means that we all have an organization that is patient centric, have alignment and hints and tips and their instinct, we do not have a problem of underutilization of the services. We have a problem of overutilization. So our way of increasing loyalty to patients is just leaving them through the right process, in order that they can be treated in the best way possible.

MR. UDAYAKUMAR: Thank you. Let's see if we have a few minutes to go to the audience. Please put your hand up. I think we'll have a mike coming around. You can state your name, your organization and a very brief question.

SPEAKER: (inaudible), Veterans' Health Administration. My question relates to Indian background, that you have competing ayurvedic system, united system, hepatic system, so how do you include them in your process, or you compete with them all the time? Thank you.

MR. JOHAR: I'm glad you asked that question, because that's one of our core innovations. So where we actually practice, we have practically no doctors. As a country, just to set the context, we need around 1.2 million doctors, and we have close to 400,000 doctors. So at least 400,000 doctors like to practice in big cities, because it makes no sense for them, either in the compensation, career path or you know for their education, to go to places where we are asking them to go. So we actually work with ayurvedic and (inaudible) doctors, and train them for like six months on the nurse practitioner curriculum that exists over here. So that's actually our core innovation which I didn't speak about, which is the amalgamation of many of the resources that are existing in our country, to practices that have worked very well in the west, and actually find a mid-path. We would have loved to take the nurse practitioner model to India but the regulation is such we couldn't go very far. But this was a great opportunity just to look at Indian streams of medicine, bring in the nurse practitioner model over there and

actually bring in kind of the best practice. It is very hard to bring in best practices from Ayurveda and actually implement them because on one hand when you talk about modern medicine, there is just a lot of research that supports that evidence. We have very little evidence on the other hand. But whatever we can gather, we do actually bring those best practices. And the practitioner at the core is an Ayurvedic practitioner who's running our clinics; because we don't -- we have no access to allopathic doctors in our geographies. So thank you for that question.

MR. UDAYAKUMAR: Thank you. Other questions?

MS. ANDERSON: Yes, my name is Pamela Anderson. I'm from Johnson & Johnson, in their diabetes care franchise. The question that I'm wondering is, is there any common gaps -- I'm hearing about citizens and patients. I'm hearing about how the rural areas, it's very difficult to get practitioners, and I'm trying to understand what we can do to serve the patient or the citizen or whoever better, and how we can meet those gaps.

MR. UDAYAKUMAR: Anybody want to take that? So maybe I'll add to that and say, as you think about next steps, right, so you've all achieved some effectiveness, some outcomes at what you're doing, so as you think about scaling and increasing the impact of your work, what are the key gaps and what are you seeing as the necessary components to continue to scale.

MR. BOSCH: Well in my opinion, we are working on that now. One of the most important gaps is working not only in a reactive way but in a predictive way. We are working in our system, our (inaudible), in order to (inaudible) those patients who in the next years are going to be high level, level of high uses of the system because we know that for example, we have under diagnosis of some of diuretic that we have patients that are between 65 and 70 and we know that now they are more or less healthy, but in the next years they are going to be (inaudible) so we are trying to improve that (inaudible)

thing in order to provide better processes, better health alignment and also in order to teach them for their health.

MR. ROSALES: I would say in our case, being so -- one of the key elements also the use of technology, that's always a challenge, the uptake. We've conducted different evaluations and work with different partners, actually with J&J we have done some evaluations in Mexico on the use of cell phones, apps. We've worked also with in the NCD partnership with Lilly on how the patients, what is that they are doing after they go into the health clinics and when they -- what they have to do in order to change their behavior. I mean, and that's the biggest challenge, and that no one has, I think the answer there. This is something as opposed to what you do with vaccines that's a one shot. But with NCD's it's a lifelong thing that you have to work with. So you always have to come up with innovations and see what is it that is working. Some things have proven results. But I think that's the biggest question mark.

MR. JOHAR: I think in my case, I would just want to actually echo what the other panelists also said, that you know when we are talking about diabetes, we actually have very proactive, so we will go by phone, get a sense of our geography, who's at high risk and you know, who's at medium risk. But primarily where we are operating right now, as a healthcare provider is in the known-known space, meaning people knew they have diabetes, we helped them actually with a low cost solution, closer to their home. What will be success for us in a couple of years is if you could move from known-known to the unknown-known space, which means, people did not know that they were suffering from a disease. Through better testing, through local diagnostics, we actually increased the capability of the population to really understand the true disease burden and begin to act on the disease burden through interventions like ours. We are a couple of years away from that and that will be success for us and our journey over the next couple of years.

MR. BRATNER: Robert Bratner from the American Diabetes Association. The patient centered approach here is still being looked at from an acute disease process, not a chronic disease process. So the comment that was just made about what the patient wants, is to go back to work tomorrow and be functional. That's an acute care model, not a chronic disease model. My question to you is, how do you adapt to a disease where acutely, they feel fine, chronically they're going to cost you money, and it's going to be a major medical problem?

MR. UDAYAKUMAR: One of the critical challenges to all of these models, and we certainly don't have almost any health system. Anybody want to talk about any experiences or challenges you've seen in this?

MR. JOHAR: I mean, to us, that's a really good question. I wish I had an honest answer to that one, but we are I would say like really struggling. So what we can really promise as a health care provider today, is that clinically your condition is tabled, but when complications arise, currently if you look at our model, even from the financing side of it, that's a little bit of an open end. You know, we expect for the public systems to kick in, to be able to deal with those complications and we're hoping that we can delay the onset but they continue to be a huge cost on the system and you know they continue to actually backfire in ways you would not want them to backfire. In years to come we are hoping that a model will become a little more comprehensive but right now that question is still on the wall for us. So unfortunately we don't have an answer to that one.

MR. BOSCH: Well I think that for us in Ribera Salud, we match diabetes chronic care, our GP's, our nurses, but we are completely (inaudible). We also are trying to put reports on our dashboards. These new kinds of outcomes are not what really matters to patients but it's a great challenge.

MR. UDAYAKUMAR: And I'm going to go back out in just a minute. Let me follow up on you mentioned financing and part of the work we're talking about is really thinking about policy and financing and the broader eco-system, so for each of your

models, what are the policies or financing mechanisms that have helped or that have hindered the effectiveness and scaling of your model. Let's start there.

MR. BOSCH: I think that capitated payment is one of the most important things that can, or that helps us to provide this kind of health or this kind of management so that it somehow aligns all the stakeholders involved in the healthcare, the patient who wants to be as health as possible, administrations that really wants to pay as little as possible and of course the companies that want to (inaudible) a good schema with a long term contract.

MR. UDAYAKUMAR: Thank you.

MR. ROSALES: In our case we see more supporting of efficiency. Before we had say water popular in Mexico, probably it was around five percent of the GDP that went to health. Now it goes up to six, to six, three percent. Now that we have more money, I think we're doing instead of a better job, a worse job, from the public side. So I think it's a matter of doing more, better use of the resources. And again, this comes back to the accountability and transparency issue. We think that if the governments are not accountable for the use of these resources, then nothing will work and you can go all the way up to the standards of the U.S. of around 10 percent or more, and still things will be as problematic as they are. So for us, it's just doing a better job with the resources that you have.

MR. JOHAR: India is at a very interesting point, so as I mentioned, India spends less than one percent of its GDP is spent by the government. Now traditionally, and we got our independence around 60, 65 years ago -- the government said that when we are spending this money we want to spend all of this money ourselves and you want to create all the infrastructure and we want to be providing health care to our citizens. Thankfully a decade ago, the government kind of woke up saying that they're very good in setting infrastructure. They're not the best players to provide services. And then, you know, as a country, we started looking at a lot of insured. So in India, financing is

understood as insurance. There is no other format in which we understand, unfortunately, financing. So financing for us is insurance. So you know, the Indian government woke up to say that, you know, there are very interesting ways in which we can look at insurance driven models, in which the private sector participates with the government to provide health care to places where the Indian government is struggling as of today. As a country we have around 15 percent, one fifth, of our population covered by any form of insurance, sponsored by the state, sponsored by the federal government, sponsored by the central employee union, and all of that stuff, out of which, only five percent is pure private insurance. So insurance is like a really super small market in our country. And if you look at insurance, you know most of that insurance is all hospitalization, which means you have to be in a hospital for a minimum of 24 hours before any kind of reimbursement kicks in. And the insurance companies realize that you know, for them to really keep a tight control on costs, they have to start looking at (inaudible), they have to start looking at chronic care management. But that's very different from paying for say a heart surgery, which is one episode, costs a hundred thousand in Indian rupees. You can put in checks and balances. A diabetic patient will show up in a clinic three times, will cost two dollars every time. It takes four dollars for an insurance company to process that claim, so the math is not adding up for them. So in India it is actually a really good time to try out all of this financing methodology, that you are talking about -- subscription, capitation, primary care, acute management of chronic conditions, because we are all looking for ways to actually get a little bit broader than what we are doing today. So it's really interesting times, with everybody looking for an answer. So in a couple of years, the follow-up that you will organize I think will help. (laughter) Nice short answer to represent. But it's interesting times for sure.

MR. UDAYAKUMAR: Well thank you all and I think we could keep going for a few more hours. Unfortunately we've reached the end of our time for this panel and I think what you've heard about are three really interesting models and very different

ecosystems, very different approaches, but a lot of common themes, a lot of common challenges, as they look at effectiveness, as they start using data on a continuous improvement perspective and as they continue their work with the policy and financing broader ecosystem to make sure they can continue to scale their impact. So please join me in thanking our panel for a fantastic conversation. (applause) At this point I'll hand the mike back to Mark.

MR. MCCLELLAN: Great. Thanks Krishna and to the entire panel. I'd like to ask our second panel to come on up to the stage, and while they're getting settled, I'll introduce them and we'll get right into this focus on accountable care and innovations, disruptive innovations in diabetes care in the United States.

MR. McCLELLAN: You have just heard about a number of distinct innovative approaches to improve diabetes and complex patient care around the world, as we are going to turn to now some of the U.S. case studies that you have seen for this event.

This is also happening right here in the United States, and we are going to talk about some of the similarities and potential differences between the international and U.S. experiences, and identify potential areas of common ground and ways of supporting more effective transformation more quickly.

With all of this in mind, we have a diverse panel joining us today. Steve Fitton on the end is the Medicaid Director for the State of Michigan, Department of Community Health, who has been involved in a range of initiatives underway there in the State Medicaid Program, to shift towards more of a community and early intervention focus for chronic diseases like diabetes.

Greg Long is the Chief Medical Officer at TheDacare, and has long been engaged in a number of innovative approaches to promoting population health as part of an accountable care organization, and is in the process of launching and expanding a program focusing on complex patients, like those with diabetes.

Jose Pena is the CEO and Chief Medical Officer of the Rio Grande Valley ACO in South Texas, dealing with a challenging population from the standpoint of high incidence of diabetes, limited incomes, and many of the issues that contribute to a high burden of diabetes complications and high health care costs in programs like Medicare in that region, and is part of an accountable care organization effort to address that.

Chuck Saunders is CEO of Healthagen, affiliated with Aetna, where he is leading a wide range of initiatives involving medical homes, accountable care programs, other supporting initiatives to help health care providers transform care.

As with the last panel, we're going to start out with just a little bit of overview of some of the main things that are going on in these programs.

I think what I'd like to do is start with our two health care organizations, with Greg and Jose, to describe what they're doing, and I'll ask Chuck and Steve to provide a little bit of context from the private and public payer side on how they see their policies supporting and potentially encouraging some of the innovative approaches to care delivery that are being implemented here in the United States, and then we are going to tie this back in discussion of some of the things we have heard about from an international standpoint.

Greg, if I could start with you, maybe just a few brief points about some of the main features of the initiative that you're undertaking at Thedacare, why this is such an important effort, and what you see as some of the key challenges in accomplishing your goals.

MR. LONG: Sure. Thanks, Mark. Thanks for the invitation to share, and to the staff for helping put the case study together.

Really, from three key messages on what we're working on, probably the most important is we have had a fair amount of experience working with the CMMI Pioneer. We have been in that for the last few years on a large scale.

What we are really trying to do now is become much more focused in what I call "inside out population health," where we are really focusing on our highest risk population, with obviously diabetes being a big part of that.

We are working with two of our primary care clinics. We have stratified our patients. We have identified the top five percent, which in those two clinics is roughly about 1,800 patients.

Really what we have tried to do is take with some of our lean innovation background worked an innovation model to come up with what is the best way that we can now address this population with their health care spend that's not being able to get them to their outcome targets.

Really we are focusing on this multidisciplinary team based care approach. That in and of itself is not innovative, but I think trying to put that entire team together and do it on a larger scale in a large health care system is what we are finding is the challenge.

Part of that is we enroll patients in this process. We now have 100 patients that we have enrolled in that, and we actually literally take a team of different providers including behaviorists, pharmacists, clinical care coordinators, and put them in a decentralized model right in the primary care setting.

That, for us, is very unusual, as you might expect, it's a much more costly model if you make no other additional changes in how you manage the rest of your 95 percent of the patients, and right now we don't get reimbursed for that particular model.

That "inside out population" approach really is heavily focused on ambulatory care. We really try to minimize the use of acute care settings, very strategic use of our specialist partners. It really is very heavy on primary care and a new team based approach.

With that, as you might expect, that isn't what physicians went to medical

school or residency training to learn how to do. That is probably one of our number one barriers, to help them figure out they can be much more of a team leader versus I have to do everything by myself.

That's going to require compensation changes, a much more intensive connectivity with patients, less face to face, more time with care coordinators, pharmacists, RNs, NPs, and PAs.

It is going to be a much different model, but it was eye opening to me to look at statistics within our own family physicians and internal medicine. In any given year, they would have about 500,000 patient visits, and if you look at our acute care settings, we had about 28,000 discharges from hospitals.

The care is happening in the ambulatory setting right now. We just want to figure out a way to make it more robust, minimize the need for hospital admissions, dramatically decrease the utilization.

That is really kind of the number one thing we are working on, and really sort of the two other issues are our payer relationships, how can we work more closely with payers, help them understand the model that we are working on, and hopefully get back to some sort of assemblance of a risk adjusted capitation model.

Even right, in what we have discovered in the work that we have done in the Pioneers, we are almost at the bottom at least in those comparative organizations with our costs per Medicare beneficiary. I think this last reported year it was about \$8,400 per beneficiary.

Our concern is as we keep ratcheting down that cost, shared savings type model, or anything to do with how you bend a cost curve, is not really going to adequately pay for this model, so we really need to get back to some sort of a risk adjusted capitation or percent of premium, where we can take those dollars and really focus on our care.

The other thing that we have probably less direct impact on is the policy

reform, on a much larger, broader scale working towards a more rapid advancement in payment reform and less shared savings in this type of a model and more around risk adjusted capitation or percent of premium.

Right now, to fund this, one of our biggest obstacles is internally. This is costing us money. At the same time, we are decreasing our utilization which right now is revenue, so we are actually looking at a lot of external grant opportunities to at least help get us through this proof of concept phase to at least show to our CFO and CEO that we can afford to do this and not take too much money out of the bank and shooting ourselves in the foot in the process.

MR. McCLELLAN: Greg, thanks for the overview. You have emphasized the importance of reimbursement or the lack of reimbursement for many of the team based and preventive approaches that you are taking.

I think a lot of people hear about Pioneer ACOs and ACOs generally and think well, that's payment reform, isn't it. It sounds like you're saying it's not enough.

MR. LONG: It's not. Again, I think systems across the country are at different places. Fortunately, in the upper Midwest, we have had 10/12 years of experience, if not longer, in trying to get health care costs more under control so when you kind of start out in a lower range, a shared savings model as an example, you're just not going to cover the costs or your reduction in revenue.

The other thing I just found out recently is even if you look at incremental changes like the CMS chronic care management fee, every individual that may want to take advantage of that still might have an \$8 co-pay. Us, we are going to manage those patients the same anyway whether a Medicare recipient chooses to go that route and we get the money or not.

Incremental changes just don't seem like they are going to support this type of disruptive innovation, if you will.

MR. McCLELLAN: We're going to come back to that, disruptive

innovation. Right now, I'd like to go to Jose. Jose, I think your region got some fame a few years ago when Galan wrote about it as not the case as in the upper Midwest. Actually, some of the highest Medicare costs in the country, some of the highest complication rates and rates of serious conditions and chronic conditions like diabetes are not the situation that Greg was describing.

Can you tell us about how you have changed that? It came through very clearly in the case study that you are really implementing a fundamentally different model of supporting patients with diabetes and other chronic conditions.

MR. PENA: Thank you for the invitation, first of all. Yes, we are coming from a different part of the country and different perspective on cost of care and the population.

Part of the high cost in our area is that we have about 45 percent of -- when we talk about cost of care, we need to subdivide the dialysis patient and disability that have Medicare, so the cost is not too different across the country, but when you compare it, it's going to look a lot lower per capita, so this is a clarification.

We didn't have too much experience on care coordination before, so we grabbed the opportunity with the health care reform and with Medicare, and we thank you for being one of the fathers of this movement, and we had the opportunity to come to CMS headquarters in 2011, when the final rule was ACO was published, and we heard what the other parts of the country were doing.

We make an adaptation and we start to experiment with care coordination, so we assigned a care coordinator at every one of the clinic participants to start to engage the patients, to have them come more often to the appointments, and so on. Then we focused on diabetes because we have 45 percent of diabetes, so every other patient has diabetes. Of course, there are many other complications.

We didn't know that was better. Nobody tell us about cost of care -- this movement of improving the quality and decreasing the costs -- there is just a lot of new

information, access to data, and that is a big eye opener.

Clearly, we focus on diabetes because focus on that was going to improve the quality of life of our patients, and decreasing cost of care across the board, even though it takes a while for that to happen.

We started to train the care coordinators at every clinic. We started to see the numbers around the country, about 20 to 25 percent of people with diabetes have an A1C above 9. We followed the comprehensive diabetes care and the quality measure, paying attention to blood pressure, to elevated cholesterol, smoking status.

We started to focus on that and some innovation that we created one year later is a common sense approach, it is a diabetes checklist. Basically, we had a medical assistant before the doctor comes in look for those parameters, whether it is blood pressure, smoking, and to put it in a note.

If a patient is coming for a different reason, back pain or headaches or whatever, the doctor has a big number, A1C 8.5, and it needs to be taken care of before the patient leaves the room.

The checklist manifested a few months ago, and we matched data. This is what we have been doing for a couple of years already, a very low cost solution is helping us to have great outcomes. A1C above 9 came to 12 percent as a group, but in the things that are more focused, the care coordinator and the checklist, it is coming down to 3 percent A1C above 9.

We have the care coordinator. We also have a nutritionist. Like half a day per week, we put the uncontrolled diabetes patients to come on that day, so they see the nutritionist before or after the provider.

MR. McCLELLAN: These programs that you have implemented, the checklist and the ability to track it, I know it was some work to get the information out of your electronic medical records and get it right in front of the doctors in big letters, the screening that you are doing, the nutritionists, the diabetes educator.

How is that being paid for now? Does the Medicare ACO Program do enough? I know you took some extra steps that most providers of Medicare haven't taken with the ACO Program to try to get more money up front and to try to make this more meaningful for your clinicians.

MR. PENA: Right, we didn't have the money to do all of this at the beginning, so we took the opportunity with the advanced payment model on the ACO. The CMS was \$6 per patient per month. We used the information technology. We have about seven different EMRs. We need a population management system able to take quality data and tell the patient is your Medicare population, 50 to 75, that is missing a colonoscopy, this is your groups.

The Medicare records, the EMRs do not have enough filters to help us out, so we have to develop a system to interface with every EMR and show the doctors this is where you are, and doctors are very competitive, so everybody tried to improve.

MR. McCLELLAN: Thanks for the overview. I know want to turn to a couple of the payer perspectives. We heard how the lack of alignment between some of the innovations that you would like to implement and the care that you actually get paid for has presented an obstacle, but one that you all are working on to overcome.

I know for both of you from the public and private perspective have not only been looking at new payment models but looking at other steps that you can take to support these kinds of innovations in care.

Steve, if you don't mind my starting with you, you have a challenging patient population and a challenging budget situation in Michigan to deal with. How are you approaching innovations and supporting innovations and care for diabetes and other chronic conditions?

MR. FITTON: First of all, I'm pleased to be here, a very interesting program. I was trying to figure out how I got invited, and I guess I figured Michigan was far enough away to qualify as "across the world." (Laughter)

We have a number of, I think, initiatives that are currently underway that relate to trying to deal with chronic care in a more innovative way, and then we do have some strategies that we are still working on.

I think a lot of times it is good to sort of see where you are in terms of a point of departure, so if I could quickly cover that. We have had diabetes education programs that are actually certified and I think covered in statute that Medicaid has been paying for for decades, I think. That is kind of a baseline.

We are an HMO state. I think as states are different and regions within states are different, that's part of the challenge, especially at like a state Medicaid program level, how do you have a strategy that works in a more systemic way but is still responsive to the individual kinds of innovations and the kind of variance you see in the way care is organized.

Like I said, we are an HMO state. We have had sort of an all in strategy on HMOs for about 18 years. We have increased the quality. We have Hemoglobin A1C testing that has been included in a financial dollar incentive pool that we distribute based on hitting certain benchmarks. It also is included in an auto assignment algorithm so that HMOs get more lives if they do a good job, and then we are adding Hemoglobin A1C control in terms of this incentive pool and that distribution in this current year.

We have some grants in terms of community health workers that are relating to chronic disease and trying to expand beyond strictly medical models to other health and social services that impact these conditions.

We have a health home demonstration in three counties for individuals with severe mental illness, and diabetes is a co-occurring condition and is addressed there.

We have the biggest patient-centered medical home project in the country with Medicare and the Blue's and Priority Health and some other payers. We have more primary care physicians who are affected in terms of trying to transform that

model.

Then we have the Healthy Michigan Program, which is Michigan's version of the Medicaid expansion. There is a focus on preventive services. There is a requirement the primary care visit be scheduled within the first 60 days, and hopefully actually occur within the first five months. Co-pays are waived for certain services that relate to chronic conditions including diabetes, so that would be both physician services and pharmaceuticals.

We have a health risk assessment that all of these low income adults are expected to complete, and then there are incentives if they comply with certain kinds of healthy behaviors in terms of weight control, tobacco cessation, or even just follow through on getting their chronic care. If they are over 100 percent of poverty, they can get their premium reduced or they can get gift cards if they are under 100 percent.

That is kind of the framework for where we are. It's quite a range of models there. What we are going into is a procurement for our HMO business, and the RFP will be released in May. Even though we have been paying full risk capitated care, which has given the HMOs certainly a lot of flexibility in how they pay providers and the kind of initiatives and innovations they have, what we found is they are fairly limited and fee for service is still sort of the reactive way of doing business.

We're going to be pushing hard to pay for value and pay for outcomes, but the question is how do you do that, how do you do that from a payer's standpoint to require that in an effective way, and at the same time, we have the state innovation model which is a \$70 million grant from CMS over five years, where we are moving to accountable systems of care in some regions in the state.

We want to be aligned between Medicaid and this innovation model, and it is kind of a struggle to make sure that we have our signals straight, make sure we are both moving in locked step, and how are we doing that, is it episodes of care, is it some kind of global payments or sub-capitation tied to certain kinds of behaviors and

outcomes, just what are we getting.

As a player, I think there is really a struggle with coherence and alignment, and having a more systemic strategy and still being responsible to individual initiatives.

We have 2.2 million people in the Medicaid program in Michigan. We have a budget of \$16 billion a year. You have to have some consistency, and you have to be able to put the mechanics in place to make this all manageable and to be able to have accountability.

I just have sort of a series of questions in terms of what are your strategic goals, are you focused on a limited population, do you have a more systemic strategy, where are you in terms of what is your point of departure.

Maybe the system that has already really moved you pretty significantly and you don't have that much to gain, so you have to assess that. If you are focusing on high risk/high cost patients, you have to make sure you are impactful there in a broader way, and you have to figure out how is the health system organized so that you are capable of executing your desired model.

If ACOs are out there, and we do have some in Michigan, but they are not everywhere, then that is a partner we can interact with, but if they need to be developed, that is another effort. That would have to move along in order to bring the rest of the state, I guess, into the fold.

Anyway, that is sort of a broad way of maybe outlining it.

MR. McCLELLAN: Very good context and a good illustration of why you are here, to highlight the range of both progress on payment to support innovation and some of the challenges you see. I do want to come back to those.

I would like to turn to Chuck. You are one of those health plans. Aetna in the United States is undertaking a lot of efforts around moving away from fee for service payment. Aetna around the world is involved in some of these innovative

approaches to care delivery.

Chuck, maybe you can provide a bit of an overview of how things look from the standpoint of innovations in diabetes care and other chronic diseases from that standpoint.

MR. SAUNDERS: Sure. First of all, thanks for having me here. Healthagen is a population health management arm, if you will, of Aetna, that enables providers to assume accountability risk. Over the last five years, we have helped develop and manage more than 60 ACOs, about 200 patient-centered medical homes, and we have more than 1,000 value based care relationships that cover about 3.2 million lives. So, we have had some growing experience with this.

What we find is that providers, although they may be willing, they are not necessarily able to provide all of the capabilities necessary to manage in this kind of model, so we provide enableness services that are technology and data analytic services, care management services, with thousands of nurses and behavioral health and social workers and others that can provide these services in partnership with the provider, either on a centralized or localized embedded model.

We do this on a payer agnostic basis across all populations, Medicare, MA, Managed Medicaid, commercial insured, commercial self-insured.

In addition, we provide tools for patient engagements, and there are a lot of innovative ways we have found to engage patients that are very different. I think a question was asked about how do you think about or manage these populations outside of the acute episode, and what kinds of approaches can you take.

Some of that comes from the benefit design that provides incentives through a high deductible health plan or other financial incentives that give them rewards for participating in programs even though they might not have symptoms. Some of those involve certain technology tools, digital, social and game mechanics that provide an engaging way with neurobehavioral feedback loops that reward them for certain

behaviors, for example, in competitions to lose weight.

We found the social approaches with social care giving are particularly powerful because we can enlist caregivers and other loved ones that provide support for that individual and encouragement.

With the approach to care management, we think of a little bit differently. We know the cost of care, about 45 percent of it, is driven by five percent of the population, the sickest to the sick. Rather than think about care in disease verticals, program centric, diabetes or COPD, we think about it in terms of horizontally in terms of risk bands.

We aggregate data from a wide variety of sources, claim data, clinical data from a growing number of EMRs, sociodemographic data, patient self-entered information, and physiologic data from biometric sources, et cetera, to understand the population, to understand the risk bands, and those who are at greatest risk of having the need to consume health care resources at some point during the year.

Then we reach out and engage those people, and we engage them either telephonically or electronically or increasingly through localized embedded multidisciplinary care teams that would include care coordination, nurse case managers, behaviorists, pharmacists, and others working in concert with the provider.

We find that when we engage people with these local teams, the engagement rates are about 100 percent higher than the engagement rates we get with traditional health plan mechanisms, and then the impact on the cost of care and the outcomes of these people can be substantially higher as measured by a variety of things, tradition utilization metrics, PMPM cost savings, change in trend from year to year, quality metrics. We track some 200 different quality metrics and report on those.

It is these kinds of approaches. We have had a number of long standing ACO partnerships. Banner Health is one, I think, that is widely recognized, and has been

responsible for an enormous amount of savings in the Pioneer Program, but there are a variety of others which have gotten tremendous results in our Medicare Advantage programs as well.

MR. McCLELLAN: Thanks. I would like to come back to some of those payment reforms, like the ACO programs and related programs that both you and Steve mentioned. It does sound like in hearing from all of you there is some real common ground with the kinds of innovations and care that we heard about, internationally as well.

If there is one big theme there, it's moving to this -- as heard in the last panel -- patient focused really isn't enough, it's more of a citizen focus, and certainly not a treatment focus or vertical.

Can you all maybe add a little bit more about what you see as you look around in terms of innovations here in the U.S. that we have talked about a bit here today, internationally, what you see as some next steps that may help with moving in that direction.

Maybe I'll start with the two of you who are actually implementing some of these programs with your health care providers, Greg and Jose. You have clearly taken some steps in this direction. What is next? What are some of the most promising further innovations out there in moving to this person level focus?

MR. LONG: First, I appreciate Chuck's comments. It sounds like there are a lot of parallels with what we are doing. I have even taken that down to a patient level, multiple examples, even in these small patients that we have already managed.

We had one patient with mental health issues, bipolar disorder, personality disorder, literally that was contacting our clinic 20 to 30 times per month. These interventions, when you really get down to the patient face to face or high touches, it's a very intensive process that in the current system there is just no way those can be managed, so what we do is just let that pattern go on and on.

We have intensive work with our behaviorist, physician, nurse

practitioner with this one patient that literally got that down to one call per week.

Unless you kind of get really down into what the details look like, it's hard to understand how intensive an approach this is compared to how we currently do it.

To answer your question, we just want to expand that and diffuse that type of a model, and really it's just kind of a changing of the resources and where we put our funding into that type of a team based approach to really manage this very high touch, high need population, and hypothetically speaking, so far, I have already seen the benefits whether it is from adverse events or decreased visits to the Emergency Room, or such a dramatic reduction in phone calls and so forth. It is really just kind of a changing of where we put the dollars, where we put the resources.

MR. PENA: In a similar way, we are trying to expand our programs. With ACO, we are trying to share best practice from the top performer units to the ones that are new or lagging behind. We also are getting our care coordinators to call more often the patients, to make medication adjustments, increase Insulin, for example, and the patient does not feel secure or does not have the education. The care coordinators call like every other day or every three days to increase the Insulin, et cetera.

There is new medication for diabetes in the last four years, but they are very expensive and many of our patients don't have the money for the co-payment on that, so there is a challenge there.

We are trying to get more sophisticated and to use some analytics and predictive modeling, focus on those high risk populations.

Our model has been successful and we are willing to share, and we are in the top 10 percent of the country for reducing A1Cs and reducing the whole block of blood pressure, cholesterol, and so on.

We are learning from ourselves and learning from others in South Texas.

MR. LONG: Can I comment just on the care coordination, Jose prompted something. I think care coordination and care management has been around

for a while, but the other thing that we are seeing with our care coordinators that we have currently working is that we are actually looking at them as a care coordinator throughout the process of the whole horizontal flow.

So already, we have had care coordinators accompany patients to their specialist visits, so for health literacy, interpreting what that visit really meant, what was the feedback, what was the plan of care.

Just recently, we had a very high utilizer for ER admissions, had a health care coordinator and nurse practitioner visit that patient when they were in the hospital, but that was an ambulatory connection because that patient kept showing up back in the hospital. We were able to find out some social things that were going on and actually put some of those things in place.

I think we are kind of wanting to take that care coordination to the next level. It's not just in an ambulatory setting, but it is literally following that patient through their entire journey.

MR. PENA: In a similar way, we are doing a lot of home visitations by a nurse practitioner or PA, when they come out of the hospital. This is very important.

MR. McCLELLAN: Steve and Chuck, in terms of next steps, maybe promising opportunities for further innovations in this person focused approach to care that can improve outcomes and reduce costs?

MR. SAUNDERS: I would say of all the innovations that are occurring, there are probably five areas that are the most promising. One of them is in social care giving, so you enlist not just the patient but the team of their own micro network that cares about the family.

We did a program with neonates that engaged the family and other support around that with using technology and iPads and found a pretty significant drop in both the average length of stay in the NICU and post-visits and days lost from work for the patients.

Another interesting and exciting area is in biometrics, and integrating biometric data sources in the care of complex patients so they can remain independently managed out of the hospital for a longer period of time, and that is integrated in the care management programs.

A third area that has been mentioned a couple of times here is the team based approach to local care management, but focusing primarily on transitions in care, complex case management, and end of life compassionate care, and particularly integrating behavioral health in those.

Another exciting area, I think, is in advanced analytics that incorporate now data way beyond the claim sources to better understand the patient.

Then the fifth area is in patient engagement, new modalities using digital, social, game and other types of ways to engage individuals, and also to use sophisticated sociodemographic targeting to understand which engagement modalities are going to be most effective.

It's one thing to call let's say a 55 year old housewife on the telephone between 8:00 and 5:00, but that's not going to be effective with an 18 year old that doesn't have a landline, where a 75 year old person isn't capable of answering the telephone.

We found there are about eight different sociodemographic patient groups, that each one has unique and different ideal paths to contact them, so if you actually channel those engagement methodologies using those sociodemographics, it can be far more successful.

MR. McCLELLAN: That was a fantastic answer. Steve?

MR. FITTON: I guess just maybe a general comment. That has to do with because I think there are many opportunities given technology and some of the opportunities that really technology is affording us in the future.

I guess my comment has to do with sort of a dilemma about resource

allocation. We are sort of an instant gratification culture and certainly we want to see dividends quickly, so I think the high payoff obvious programs are those where you have costly patients who have many different kind of exacerbations, they need a lot of services, so there are very significant costs, and if you put a program in place and manage them better, you are going to see a payoff in relatively short term.

I think what is interesting from my standpoint is what happens with programs and can they be sustained where the investment is long term. For our Healthy Michigan Program, we have a health risk assessment. We have healthy behavior emphasis. We don't know how that is going to work because we don't know how human beings are going to respond to this.

It seems like this is an area that needs a lot of work in terms of gaining evidence to find out what the best mechanisms are to incentivize people to live healthier lives.

But is that going to be effective and will we hang with it long enough so that we can see the payoff's down the road. If people do eat better and have better weight control and don't smoke, you are going to see a lower incidence of diabetes. You really are getting upstream, but I think do we have the patience for that, will we allocate the resources there, and stick with it long enough rather than having these models that are built around high costs/high acuity populations where you can kind of see the results much more quickly.

MR. McCLELLAN: Let's turn that back to Greg and to Jose. You all have been doing more upstream work. We heard about it in the first session this morning, too, about outreach for screening for patients who are at risk for diabetes. Jose, you talked about the diabetes checklist and the other steps you are taking, both of you, to try to get evidence based care followed for patients who have been diagnosed with this condition.

Do you see that moving further back upstream? It certainly can have an

impact on health and on costs. As Steve was saying, it is probably going to be a longer term process than being able to show impact on diabetes complications and improvement in outcomes and preventable complications, and it sounds like you are seeing that pretty quickly.

MR. PENA: Yes, I think that the investment on diabetes care, it will take longer term to pay off, but the approach to engage the patient will pay off in shorter terms, and the quality of care and the cost side, in our group, we have like extended hours, we have Saturday morning clinic, we have some evening clinics, open seven days a week and so on.

I think it is different pieces moving together with a common goal of better care and lower costs. Again, different modalities. We are trying to use a low cost approach and it is working in our area.

MR. LONG: To Steve's comments about sustainability, how we make this work long term, again, for us the five percent is the tip of the sphere. We start there, but I think in order to make this a long term success, to Chuck's point, as you go down the pyramid of risk stratification, the low risk or no risk are going to be interacted with in a much different way, and I think it is using best practices.

I think I've collected about five articles in the last couple of years on the depth of the annual physical and why are we expending resources on doing things like that.

I think in order to make our resources work at the tip of the sphere, we will probably divert some of our resources that are now probably over utilizing resources and put them into the benefit of helping manage, so we are kind of working our way down the pyramid and trying to come up with the innovative model for the whole 100 percent of the population and to the stratification of those socioeconomic stratifications and social dynamics. We are going to be looking at that as well.

MR. PENA: We need Congress to continue the effort for this to work in

the future, so payment reform needs to continue to happen, moving away from fee for service. The payment for chronic case management that CMS recently approved is a step in the right direction, but we need the policy makers to focus on that.

When you go to a restaurant, it should have how many calories you are going to eat in front of you. That should be spread around the country. Like in California, they should limit the number of fast food restaurants in a given city.

MR. McCLELLAN: You're talking about going more systematic. We have heard about a lot of innovations in care. You all touched on many of them here and in the first session. We could go on about steps towards early and more efficient screening, steps toward more effective outreach, and ongoing management support, ongoing support for patients with diabetes or pre-diabetes to prevent complications.

We talked a lot about team based approaches to care. I guess you all haven't gone so far as to train all your vetics as nurse practitioners, but that general direction towards more efficient team based approaches, a very common theme today.

I guess another common theme picking up on Jose's last comment is the need for further payment reforms to support these efforts. You started with that, Greg, at the very beginning.

Maybe we could just spend a minute, and I want to open this up to comments from the audience, on what you all see as the most important innovations that need to be furthered in terms of payment reform, benefit reform, to support these kinds of efforts.

MR. SAUNDERS: I have a comment about that. The trend that I see is health systems and providers increasingly want to get to percent of premium or some other type of a global payment, and in many cases, launch their own health plan.

The focus on the sickest of the sick is a little bit of an artifact of the way we are paid under say MSSP and others where you have to generate savings, and the best way to generate savings is go after the sickest of the sick, and you're not going to

generate short term savings by focusing on diabetes.

The payment system has to be a lot more global than that. There has to be shared savings, but there also have to be incentives for doing preventive things that are meaningful incentives.

We are finding that a lot of health systems want to get to capitation fairly quickly. I think that is the logical next step because fee for service is the biggest problem that we have right now to incent over utilization of the system, but managing capitation is actually not that easy. It sounds simple, but as every health plan knows, if you price wrong, you lose your shirt.

It is all about pricing to cost and pricing to trend, and many health systems don't know what their costs are. They don't have activity based financial accounting systems. They are guessing at best, and there is a wide variation in efficiency.

Some of those that are important resources in the community under the fee for service model might go out of business under a capitation model, and it shouldn't necessarily be our goal to drive our quality health care providers out of business. The goal should be bringing them along so everybody can be financially viable if they are a quality provider.

We want to get to capitation, but administration of it is difficult, but there are more and more systems that are stepping up and wanting to do that, and we find a lot of systems coming to us wanting to partner in joint venture health plans, and I think that is going to be an increasing trend.

MR. McCLELLAN: That is kind of a shared risk, not all the way to capitation but kind of certainly a different role for providers and health plans in working together.

Steve, maybe we can turn to you, as we just heard from Chuck, a lot of health care organizations don't know about costs at the overall patient level. As Jose

said, that's not what we learned about in medical school and it's not what the data systems that are available provided.

They also don't know about the range of innovations that are available and the likely impact and how they can be put together effectively.

One of the things we heard in the first panel was some of the steps that are taking place to support that, that includes payment reforms that are more person focused, whether subscription models or capitation, it includes more public awareness and transparency around meaningful performance measures and the like.

It reminded me of your comments at the beginning of this session about gosh, there is a range of things that you are trying to do to get what seemed like capitated health plan payments on the surface, to get more towards what I have just been hearing about from Chuck and the health care providers on this panel about translating that into on the ground support for real innovations in care, real transformations in care using the kinds of innovations that we have described.

Maybe I can come back to you for a last comment on this, any further thoughts on how the range of initiatives that you are undertaking to move in this direction can fit together to accelerate innovation.

MR. FITTON: I think the reality is that fee for service was sort of -- I can't think of the right word -- sort of a reflexious way of approaching, really the only way that was sort of established, that seemed to work for everybody.

You had saved savings built on fee for service.

We really do want to push away from that. I think the question is what is really going to work, and I think we know some things with the models that we have seen and heard about that do work.

I think the question is more what would work in a really systemic way across the board, and is it really focused on outcomes and trying to incentivize and pay for behavior, so you see the evidence of a certain number of preventive visits or whatever

it is that you are trying -- diabetics that are under control, whatever the metric is that you're shooting for, or is it more on the financial side of looking at the total cost of care and how that total cost of care can be reduced so you have a sub-capitation or capitation arrangement, where there is a more global budget type of approach.

I think actually we are just trying to wrestle our way through that, but the reality at least for us as payers is that I think we realize even though we had a full risk capitation arrangement with HMOs that gave them complete flexibility, the reality is it's very hard for individual organizations that are intermediate organizations to change the system.

The fact that the Federal Government is pushing ACOs and now at the state level we are pushing accountable systems of care, essentially we're forcing the provider system and the organization providers to change.

I think we are saying to physicians, you know, you have to group up, we can't figure out how to incentivize you as an end of one, you can't do the risk adjustment at the level you need to in order to be fair there, so you're going to have to be part of an organization, so hence, these accountable systems of care.

I just think that is what has to happen in terms of the fabric of the organization of care and the way the financing works has to change in order to facilitate all of this.

MR. McCLELLAN: I'd like to open this up to a few questions from those of you here in the room and online. As before, if you have a question, please raise your hand, and we will get a microphone to you.

QUESTIONER: Hi, there. Anna McCollister-Slipp. I have Type I diabetes, and I do analytics, and I am also a huge policy nerd and live three blocks away. Here I am.

One question that I have as I listened to all of this, it still seems to me -- I know we are talking about population health and that is sort of the nature of this panel,

but it still seems to me that everybody is focusing on what the system can do to manage patients as opposed to actually putting the responsibility and the opportunity in the hands of the patients.

I feel especially looking at Type II diabetes, both my parents have Type II, as do 90 percent of the people with diabetes -- if you are looking at prevent Type II, how do you do secondary prevention once the diagnosis is made, that ultimately the model needs to flip.

I see my physicians as consultants. They don't manage my care, I do. I think until we get to that model, we are still going to have cost overruns and we are still going to have people hitting complications.

As somebody who again is a little bit of a nerd and watches this stuff, I have been a little frustrated that there haven't been more incentive based sort of cost sharing/risk sharing with the patients, not in terms of giving them more costs, but giving them more benefit if they actually meet biometric measures or go to the gym every day, or weigh themselves every day on a digital scale.

There are lots of things we can do now with technology that we couldn't do five years ago, 10 years ago, and I don't feel like that is happening or being incorporated into these new models that are emerging in a way that could be far more innovative and game changing than what we are seeing.

MR. SAUNDERS: In fact, the model that is now fairly typical deployed by the parent company, Aetna, with the high deductible health plans that are person centric with incentive and award systems.

In fact, we administer a lot of those award systems, so if somebody has a metabolic syndrome or they have done their pre-diabetic, and it is brought to their attention there is a weight loss program for you, or here's a smoking cessation program, or something else, and here are some incentives that you will get if you enroll in that, if you do the assessment and so forth.

In some cases they can make hundreds of dollars by doing that. For some individuals, that might not be meaningful, but for many, it is.

I think these are becoming increasingly common, but it is a great point.

SPEAKER: I just wanted to echo, we'd love to have all our patients be like you, and I think to the point of actually understanding -- (Laughter) Understanding each individual, because what we are finding is patients that we would just write off as non-compliant before as a provider, when you get under the hood and understand what their barriers are, it is most commonly around socioeconomic or psychosocial, so that is actually one thing we are trying to do.

There are assessment tools where we can with each individual patient kind of assess their readiness to engage, and then if they are ready, that is where we would spend more time and effort.

We are trying to move more to that model of understanding, what does motivate an individual, what are their barriers that may be out of their control, and where health care probably didn't venture much into the community based efforts, that is what our care coordinators are trying to do, so if they do find socioeconomic problems, like we had one patient that was homeless, so not likely going to engage in medications and taking things, so we had to find that out and then help them find a way to alleviate that burden before they could even get to the care portion.

It's a great question, and I think a lot of people are very interested in finding out better ways to do that.

MR. FITTON: If I could make a quick comment, when we were designing the Healthy Michigan Program, the assumption that was made by some of those designing it in the legislature was that if you have a financial incentive, it will move people. Then we engaged with behavioral economists who actually study this stuff and could give us some information about what they had learned in the field. There is an awful lot to learn.

It just seemed like it was kind of discouraging. You could move a certain percentage, but really not that big of a percentage even in an employed commercially covered population with dollar incentives or other kind of incentives.

I think the real dilemma here is what does move people. When you are thinking of a population, how do you know, because you get a variable response. If you do something and you say we'll give you a couple of hundred bucks, you might get 25 percent of the people, that leaves 75 percent that you didn't.

I have always thought, and I have my own failings, but why do you have to incentivize anybody, what is more important than your own health. Why should we have to pay people for this. Yet, we do, and it's not illogical, but there is so much to learn here, and I think it is so hard.

We haven't figured this out in terms of how to engage the consumers effectively. We talk about aligning the incentives between providers and consumers, I think that is the right thing to do, but I just think we have a lot to learn.

MR. McCLELLAN: Jose, you're dealing with a lot of patients where you can't really charge them high deductibles or things like that, people with some really limited resources.

MR. PENA: It's a good point, as Greg mentioned, the vocational level of patients is different. In our case, it is very challenging, and we are glad that CMS is considering a model and plan for the future in ACOs. To tell a patient you don't have to make a co-payment if you go to the people that are really going to control your diabetes in one way or another, working with you.

In our case, the engagement has been more phone calls. Some of the elderly, the only social contact they have pretty much is the calls, the 9:00 phone call they are expecting.

MR. McCLELLAN: Time for one more quick question. Zeena, do you want to go ahead?

MS. JOHAR: Thank you for the fantastic panel. I think it was really good. Coming from India, as a country, we have been aspiring to move to a capitation model for a long time. I don't think we are ready as a country because we need like a basic framework and infrastructure to get there.

I see a lot of emphasis over here to move there. I was just thinking that you made a point saying pricing is really the most critical thing and if you get it wrong, it can be seriously wrong. I'm sure there is a lot of literature on this which I'm not aware of.

As you make this shift from fee for service to capitation, how do you see it impacting your overall health care spending? Do you expect it to remain the same, come down, go up? It would be an interesting correlation to look at, and if there is any evidence or speculation on that.

MR. McCLELLAN: I think several of you emphasized that because of the way some of these payment reforms are being implemented now around saved savings, the expectation is that we will take some steps in this direction but save money at the same time. I think there were some comments that wasn't really enough of a shift towards person level financing.

Any brief thoughts on Zeena's question?

SPEAKER: A couple of thoughts real quickly. With the ACOs that we set up, we have actuaries that crawl over those systems. We try and end up with a product in the marketplace that is between 8 and 15 percent below what the broad network cost of care is. In general, we hit those numbers.

It is done through a combination of the efficiency, enablement of services, like technology and care management, but it also has to do with providers just being willing to lower their prices. They want to pick up a greater population to serve, and that means they have to provide an incentive for people to want to shift, and they do that through price as much as anything else.

I think those kinds of things over time will have an impact on the market

in general. When we have come out with an ACO network or product that has been 8 to 15 percent, we will find our competitors follow very quickly by dropping their prices, and what happens is there is a market effect where the price growth is blunted just because of the introduction of these models.

SPEAKER: Let me just comment on that as well. When I talk about readiness and willingness from a health care system, I speak of it really from the health care system only. We still contract and work with a lot of independent specialists that are probably much further away from even being close to a mindset of a value based payment model.

We are still trying to get people, even though they are in our ACO, there is still a lot of education, they are holding on to the fee for service as long as they can, they are small businesses, they want to maximize income. They can still go out and build their own independent free standing things, which is probably a whole other policy discussion.

I think as an aggregate, we are still a way away, but I think from a health system, we are already performing fairly well. Unless we get to that point, it's probably an unsustainable model until we match up the delivery with different payment methodologies.

MR. McCLELLAN: It sounds like very much a work in progress. Some interesting lessons and experiences both here in the U.S. and abroad in moving in this direction of disrupting diabetes care and finding ways to make that sustainable.

We are going to take a short break now before turning to our final panel, to go back to a global perspective, putting together what we have heard in the two panels so far, plus a perspective from Agnes Soucat from the African Development Bank, working closely with the World Bank on again a global view on some of these issues and innovation and systematic improvement about diabetes care and more generally.

Right now, I'd like to thank our panel, our second panel, for a very

interesting discussion of some very important innovations in diabetes care and care for patients with complex diseases. Thank you all very much. (Applause)

We will reconvene in about 10 minutes from now.

(Recess)

DR. RIVLIN: We have heard from some very interesting programs and had some stimulating discussion both about what's going on in the U.S. and what is going on in a few places around the world, although the world is very big.

This is the moment to say what does it all mean and how can we move this stimulating discussion ahead.

We are fortunate to have on this panel not only the chairs of the first two previous panels, Krishna and Mark, but joining us from the World Bank, Dr. Agnes Soucat, who has a very impressive title. She is Global Solutions Leader for Service Delivery at the World Bank. How impressive is that.

Agnes has been recently the Director of Human Development for the African Development Bank, where she was responsible for health education and social protection for 53 countries in Africa. She served as lead economist and advisor on human development for Africa at the World Bank, and she is both an M.D. and has a Master's in nutrition and a Master's in public health, and a Ph.D. in health economics. I don't know how you did all that.

We have asked her to lead off, and to start by saying what the World Bank hopes to do as they survey the whole world in improving delivery of health care, and how does that relate to disruptive innovations in diabetes.

DR. SOUCAT: Thank you. Thanks for the very kind and generous introduction. "Global Solutions Leader" is a very funny title, slightly ambitious, but in a nutshell, the Bank, as you have heard, has been reorganizing, and part of this reorganization is shifting its focus towards poverty reduction, shared prosperities, as well as global public good.

As part of that, certainly to focus on human development and service delivery to the poor and for the poor is a renewed focus for us. That's the reason you have these new positions like mine, which have been created to try to see how we can create a community of practice that brings together the knowledge we have about what has been working, what is working in serving the poor, and what will be the challenges for tomorrow in terms of service delivery and particularly service delivery for the poor.

Certainly, today the Bank's major commitment in terms of commitment to international goals is universal health coverage. As part of that, we really see some major challenges in the service delivery area across all countries.

What is fascinating for me listening to the speakers who were fascinating this morning, talking about such different contexts, and the commonality of the issues.

Are we really now one community, and it is increasingly difficult really to separate the issues between low income, middle income in OECD countries. One of the reasons is really that all countries are now going through a demographic transition and epidemiological transition.

We have health systems that were designed to respond to a lot of maternal and child health communicable disease, and they have to evolve, and even in low income countries now, many countries face twin type of epidemics in which you see both, the unfinished agenda of communicable disease, that is the case in India, as well as an emerging agenda of communicable disease.

In a way, it is even more a challenge for those countries because they already have to tackle the demographic and epidemiological transition while they are still struggling with actually building the link.

In this area, the Bank is working very much on three main areas, certainly health financing, and we talked a lot this morning about provider payments and financial incentives, and this is an area in which we have a lot of experience, and we particularly have focused over the past few years on a particular modality of financing,

which is result based financing, financing for results, or performance based financing.

There are a lot of ways we can look at that, performance based payments, results based payments, which is a movement right now that is happening about everywhere, and is still expanding.

The second area is labor markets. I will come back to that later when we get into the body of the discussion. This is really an area that we see as most critical. There is today a large deficiency in terms of numbers and shortage in most of the countries, you were talking about India missing 800,000 doctors. In Africa, it is estimated today there are probably just today one to two million jobs that are unfilled because of lack of skills. People actually pay for health care that is provided by unskilled providers because there are no skills.

A third area is innovation, and new models of service delivery, so it was very interesting to listen today about how do countries tackle this issue of the epidemiological transition, how do they tackle the issue of institutional changes, changes in the labor market, and how to develop models that actually ultimately do serve the poor and the most vulnerable, including those affected by chronic disease.

DR. RIVLIN: Thank you very much. How does the World Bank actually operate to move those objectives forward? What do you do? You have a huge world to look at. What is the most -- how do you effectuate these kinds of things?

DR. SOUCAT: I'm not sure we are effective. I think it is certainly very controversial. (Laughter) You can just Google "World Bank." (Laughter) You get all these debates.

I would say the Bank works through basically three modalities, and the one that is most known is the financing, but in a way, it may not be the most important. It actually works first and foremost by working on diagnostics. We are trying to really serve our clients by what we attempt to be, that is a knowledge bank, and using the fact that we are global, and we work in Central African Republic and in India, to be able to cross

fertilize and sort of bring all this experiences together and try to distillate some key lessons learned.

That is part of what I'm doing, that is part of my role today in the Bank, to try to enhance that role. We see, in fact, financing needs in a way are declining because most countries are getting richer, most countries don't need grants anymore because they have access to financial markets.

Our financing role probably becomes less while our knowledge role becomes more. In between the knowledge and the financing, there is the whole area we have been discussing this morning of policy, policy dialogue, and policy development, where we also try to build this expertise building on our core diagnostics, building on the knowledge that we are trying to create.

We need to create a primary type of data and information, but also to bring new perspectives on the way to analyze these, and do cross country comparisons, and then have this kind of policy dialogue at a country level.

Right now in India, the government of India is developing a new health policy, so for example, they have asked us to provide our views, not that we are designing this policy, not that we are in any way a major stakeholder, but sort of asking us what is your view from a global perspective, what is your view from what you understand from an outside viewer's perspective on how India fails in terms of health care.

That is that combination about understanding the country, we have offices in countries, we have health experts in countries, as well as bringing the sort of outside perspective and try to enrich that policy dialogue. That is really one of our goals.

DR. RIVLIN: As I listened to the two previous panels, I heard several themes, and one of them was getting information. Clearly, if you want to improve care, you have to know who is at risk and who isn't. The potential is enormous with new types of information technology.

On the other hand, we also heard these EHRs don't talk to each other, have to do all sort of work around to get this information.

I wanted to ask both Krishna and Mark, did you hear themes across the international divides, the models, how would you move forward on this information problem?

MR. McCLELLAN: I can start. We heard from the first panel this morning, but also from a lot of the work we do in working with dozens of similar innovators around the world, clearly, at many levels, this idea of data, access to data, and sharing of data and information becomes critical to success.

It starts from a policy and the perspective of global institutions like the World Bank, and being able, as we just heard, to become a conduit for understanding and sharing knowledge, which is very important.

Part of the rationale for creating a new organization like IPIHD for us was the understanding there was a lack of platforms for sharing of knowledge and data about what works and what doesn't work.

So, we have entrepreneurs who are trying to address the same challenges in diabetes in India, in Mexico, in Spain, and they are not talking to each other and they are not learning from the shared challenges and the approaches that may work, so as the world converges, we need platforms that can actually be able to distill insights and share them.

I think secondly one of the key themes that we saw across all the organizations today but also more broadly is those organizations that are committed to actually real deep understanding in terms of gathering data, having metrics, and measuring performance, are those that are more flexible, that are more agile in meeting the needs of their customers, their patients, and their markets.

Just to add to what Agnes said, I think knowledge is one of those key areas of value creation for collaborations, not only within a country where you have heard

today there are lots of opportunities for accountable care organizations and health care providers to learn from each other, as they are moving into new ways of delivering care, but worldwide.

You all have an extensive network to support that at World Bank. The IPIHD initiative that Krishna is leading is sharing experiences across innovators, and what we are trying to create with these case studies and the additional set of resources around how to adopt disruptive innovations and how to make those sustainable, is really part of that same overall theme.

I think, Alice, your question also got to the fact that for changing this model of care delivery for diabetes, there has to be new kinds of data sharing at the person level.

DR. RIVLIN: Yes, real patient level.

MR. UDAYAKUMAR: Yes. I think that was an absolutely consistent theme around every single one of these countries and every single one of these innovators. What was interesting to me is the different levels or stages or approaches going about it.

We heard about some very advanced systems. Ribera Salud has been at this for quite a while, and under a long term capitated at risk model, and has really faced some financial pressure, and had the resources available, the flexibility in how to spend resources to develop, and I think you were talking about hundreds of data elements that you track longitudinally on patients. We heard a little bit about this from Chuck as well on how they have tried to develop at Aetna some longitudinal patient data systems.

What I was also impressed with was you don't have to get that comprehensive. In fact, you can get distracted by spending too much money on information systems that don't really do what you want to do. I heard from Jose about how electronic health records are nice, and I'm sure you appreciate the subsidies that

you got to install them, computerized note entries, and not really creating that longitudinal picture that can be shared across the different members of a care team.

At relatively low cost in the Rio Grande ACO, they basically got their smart IT guys to put on top of it -- it's not all data but certainly the critical information you need for a diabetes checklist, identify and make sure that every provider involved knows if their patient is not being managed to effective outcomes. It is a much cheaper, faster solution that can be implemented and start having effects in the short term.

And even lower costs in India, where rural providers, there are no electronic health records, so you have a Cloud based approach to gather data from cell phones that people are using out in the field. Not high tech, not expensive, but clearly an approach that is able to make an impact on care delivery and change the way that diabetic patients are managed in the short term.

DR. RIVLIN: Suppose I have just been appointed Health Minister in some country in some part of the world, and I want to do something about chronic care in diabetes, where do I go to find out what is working? Does the World Bank have a role in this? Where do I go?

DR. SOUCAT: I think that is one possibility among others. I think certainly typically Ministries of Health would turn to the WHO and to the World Bank and other organizations, but also to different academic institutions who have been working on this.

What we are trying to do as an international organization is when a country comes to us with this kind of question is really -- we don't necessarily have the knowledge in-house, we sometimes do, of course, very often we don't, and then we really try to find throughout our network and our communities of practice those good examples or those people who have the knowledge, or those institutions that have the knowledge, and bring it to the country.

That is why we really do a lot of cross country exchanges and fertilization

when we have this kind of question. Right now, we get a lot of this, particularly post-Ebola. We get a lot of questions about how you build a health system in a country which has close to nothing. We get a lot of questions about universal coverage, of course, and health financing, models of delivery for the poor.

Within that, I would say maybe in a very simplified way that I think there are really three issues in this particular area that we try to highlight. The first one, I think we discussed a lot this morning, the financial incentives and the financing modalities, particularly the payment, provider payment mechanism.

Clearly, this is essential. This is a high powered incentive. It is about money. The whole health economic literature is about supply driven demand, about how fee for service leads to escalating costs, and providing more services, and it is also about information, how patients cannot really judge the quality of care, how they get care not at the right time, not from the right provider, and so on.

That is really very essential. I think what we have learned there was mentioned this morning, and I think that is the trend today, that in some way a combination of capitation payment and some kind of contract where you have some level of performance based financing is sort of the way to go.

This is absolutely where most countries are going towards, most OECD countries are thinking about that kind of combination, sort of capitation, so you have this global payment that brings together the preventive, the promoted, as well as some kind of link between the money and performance, the results. You don't want your money not to buy anything.

Most of Europe now has payments actually for diabetes, for providers, payment for performance, that are based on lab tests, on sort of hard indicators.

What I want to say is it is terribly important, but we would want it to be, but it's not the panacea. That is maybe the qualification I wanted to give to this morning's debate, there are actually countries who don't have capitation payments and are doing

very well on diabetes care. That is actually my country, France, has actually quite good outcomes, and is still having a system of fee for service.

It is not all about payment, although it is a lot about payment. That brings me to the two other aspects, which is probably where France gets it right, but it's not the only country to get it right, it is also about the providers. It is about the providers' organization, it is about the professionalism and altruism of the provider organizations.

Do we have provider organizations that are just motivated by profit or do we have provider organizations which are more into social enterprise, social business, that actually have a level of ethics, a level of motivation that is different, that is about the ultimate wellbeing of the patient.

That matters a lot, and is terribly important in middle income countries and countries in transition because they usually come from a public service, which is not performing that well, as we know in India, and is still very much focused on the old types of problems, doesn't really know how to deal with chronic disease, and an emerging private sector totally unregulated, totally into conflict of interest between making more money and the interest of the patient.

There, there is really something very important that needs to happen with the emergence of a sector that is actually a professional sector, whether it comes through a not for profit organization, like what happened in Western Europe and North America, or social enterprises, some kind of better regulated more ethical for profit type of services.

I am not making any choices. I think what is important ultimately is you have professional norms, regulations, ethics, and that is a major issue in many, many countries.

SPEAKER: If I could just add, I think professional norms are absolutely critical worldwide, and in the United States and other countries, too. What hopefully some of the payment reforms can help do is create more alignment between what

patients want and what providers would like to give them, and the way providers are reimbursed.

I think there are a lot of examples, not only the ones today, but the Commonwealth Fund, the Merkin Foundation have helped us highlight some ways in which professional norms and really the goals and rewards for people who are going into the health care profession can be better supported by these innovations in care.

DR. RIVLIN: Isn't there a role in between professional norms and monetary rewards? Somebody said earlier this morning, doctors are very competitive. They want to know what they are doing and how well they are doing for their patients, and it is not often obvious.

SPEAKER: Two points, I will come back to the doctors, but I think part of what is also missing when we talk about professionalism is actually defining what those professionals are. I think we are stuck in this model in many parts of the world where doctors are at the end of this hierarchy, and then you have nurses, and there is almost nothing else.

We know we will never train enough doctors and nurses to care for people around the world and the health problems.

DR. RIVLIN: Nor should we.

SPEAKER: Exactly, that will also bankrupt us along the way. Defining and moving toward a competency based model of creating a professional health workforce, I think has to be on the agenda all over the world, including in the U.S., and we have moved toward that with some advanced practice providers, and some other steps along the way in professionalism, even community health workers.

To be able to define that, I agree with. I think for all of those professionals, this idea of accountability and probably accountability as teams, is going to be important moving away from the current type of provider benchmarking that is very much at an individual level, which gets to this idea that somehow the individual has a

direct consequence on outcomes, to being responsible and accountable as a team for the health of populations and other economic outcomes, I think is what is needed, which gets us back to this idea that we actually have to have something to measure if we are going to benchmark people.

That is where as you heard from Ricardo where Mexico is taking some steps to try to promote these new approaches to care, what do you call it, the competitiveness among doctors to do the best, among local areas or regions, to not be at the bottom. Transparency is absolutely a critical foundation for that.

One of the advantages of working on diabetes is that it is a condition where the measures of outcomes are relatively well defined. It is very hard to capture everything that matters to each patient about whatever their conditions might be, but in this case, we have good short term predictors of long term complications. We have very good evidence based measures of screening and behavior change, medication treatments that are clearly responsible for improvements in outcomes.

For countries that are moving down this road, or for Health Ministers who are moving down this road, diabetes is not a bad place to start.

DR. RIVLIN: We want to go to audience questions in just a minute. Let me raise one more theme that came up this morning, and that is long run versus short run, the prevention, where you are really working with people who don't know they are sick yet.

Long run benefits versus working with people who are already very sick and are absorbing a lot of your resources. Any lessons there that might track across the international boundaries?

SPEAKER: Sure, I think it is all of the above. I think we can't ignore the 350 million around the world with diabetes and say we're going to focus just on prevention. There is a critical short term, intermediate, and likely long term need to provide acute care services.

If we focus just on that and not think about the public health and population health measures, we're going to just get further and further behind because we know the rates are going to continue to increase.

I think the challenge is really at a system level, how do you combine public health, population health, and acute care services in some rational structure that then is tied to the availability of public and private sector resources.

I don't think that anybody has really gotten this right.

DR. RIVLIN: You don't know the answer? (Laughter)

SPEAKER: In the United States, there are so many concerns about the level and historic rate of increase in costs that most of these reforms are being implemented with an emphasis on getting costs down in the short term.

That is why a lot of these models have started with shared savings, as you heard about from both panels, some of the fastest ways to get savings in the short term are to focus on very high risk patients who are clearly relatively easy to identify and there are some relatively well defined steps that work, once you get out of the traditional model of just treating complications after they happen.

The pay off in terms of better health outcomes, and maybe lower health care costs, for people who are earlier on in the process is much longer term. I think you heard some comments earlier today around how subscription model or something that is further away from fee for service can help put an emphasis on innovations that engage people more effectively earlier in making their own behavioral changes and doing things that frankly are going to be more outside of the health care system.

Clearly, that's an area where more work is needed.

DR. RIVLIN: Let's invite audience questions. Tell us who you are and state a short question.

QUESTIONER: Pamela Anderson, I'm from Johnson & Johnson in marketing and new product development. One of the things that I used to always ask my

teams was if there was one thing I could do for you at the end of a visit, what would that be.

I guess I'm curious, because diabetes is so highly complex. I've heard about costs, ethics, round and round. What would that one thing be that the team would say could be done in the short term and possibly even long term?

MR. UDAYAKUMAR: Do you want to start, Mark?

MR. McCLELLAN: I don't know that I'm going to come out in favor of one, because we heard about so many today, and it really depends on the perspective or the place where you want to make a difference.

I think what is impressive from what we have heard about today is there are a number of steps that can be implemented in the short term and have an impact. They do have some up-front costs, whether it is making these basic steps to collect person level data so you can identify gaps in quality of care and addressable risk factors, like elevated Hemoglobin A1C, or whether it's a shift towards a team based approach to care, or earlier outreach to patients. These steps can make a difference.

I don't know that there is any one magic bullet. I think what the innovators we have heard from today have emphasized is yes, you do have to recognize this is a chronic disease that is multifactorial, there are many ways to influence it that depend a lot on the individual patient and the circumstances, the ecosystem, as Krishna was talking about earlier, and what is really changing is the focus is on finding that right combination of innovations for each individual patient.

MR. UDAYAKUMAR: Yes, I think it is really hard to say there is one thing. I think what we saw is that every system is approaching this and what is most important to them in their local context, and a lot of what is missing is how we integrate or bundle a lot of these point innovations into creating a system of care that becomes more rational over time.

If I had to prioritize one theme, I think it is really about empowering our

patients and consumers to be more aware, to be more health literate, but to also be more accountable for decision making, and being co-producers of health as opposed to passive recipients of health care services over time.

I think that is eventually what is going to cut across everything from prevention to treatment.

DR. SOUCAT: I would actually take the risk of giving you one thing.

(Laughter)

SPEAKER: Good for you.

DR. SOUCAT: I would say I find diabetes being a fantastic tracer of effectiveness of a health system when it comes to how the health system handles chronic disease and the challenges of tomorrow.

It is exactly because there is actually this quite simple blood test that allows you to measure the effectiveness of care, and is being used right now by several OECD countries and even middle income countries now are starting to measure it.

One thing that we have been trying to promote at the Bank is really integrating measurements of quality, systematically, in what we call service delivery indicator surveys. We are trying to promote in most of the countries, and we actually have increasing demand for that, facility surveys that are independent and that actually measure quality of care.

We already did it in a few countries, and I'm telling you this is quite disheartening. We started with simple things like antenatal care and assisted deliveries and treatment of malaria in Africa. Now we are trying to expand. We found that actually the management of diabetes being a fantastic tracer and indicator, and one thing that I would say, one thing we could try as a community to promote that this is actually measured in every country on a representative scale, that we would have some sample of facilities that would allow you to actually know how the country is doing on this measurement, and reflect on what it says about how your health system works.

SPEAKER: This is why Agnes is in charge of global solutions.

(Laughter)

DR. SOUCAT: That is right.

DR. RIVLIN: Another question?

QUESTIONER: Robert Ratner from the American Diabetes Association.

Over the last 30 years, we have actually gotten very good at reducing chronic complications, cardiovascular diseases down by 60 percent, amputations are down by over 40 percent.

The problem is the costs of diabetes care are going up because of the number of people developing diabetes. The per capita expenses haven't really changed in the last five years.

The issue that Dr. Rivlin brought up in terms of prevention becomes critical. What we are seeing is a growth in diabetes in particular in countries that are advancing quickly, India, China, Indonesia. These become real problems.

I haven't heard anything about disruptive innovation in terms of public health, in terms of really going into a societal basis for preventing diabetes. I would love to hear the panel's impressions.

DR. RIVLIN: Good question.

SPEAKER: First, I'd say you are right, but the comment is very much from an U.S. or developed economy perspective. I don't think we have become very good around the world at preventing complications of diabetes.

If you go into the Narayana Hospital in Bangalore and see the hundreds of heart surgeries they are doing every day, it is because people aren't being managed.

I think there is the need for capacity development and disruptive innovation up and down the value chain of diabetes prevention and management and avoidance of complications, and a lot of the innovations we are seeing to the earlier comments about the short term payoff is looking at a high risk population and being able

to reduce costs or increase effectiveness of therapies.

I think that is where we are seeing a lot, especially in private sector innovation. I don't know what the incentives are, especially to drive private sector innovation, which is where we focus and where we actually see a lot of the disruption coming from, when you get to the prevention and public health measures.

I think we are starting to see it in places like energy and places like water, which we know lead directly to health outcomes, but in terms of behavior modification, I don't think we are where we need to be yet.

SPEAKER: When you are talking about diabetes indicators, you're not just talking about how well controlled the diabetics are, in terms of Hemoglobin A1C, in terms of risk factors and progression to pre-diabetes and diabetes, it hopefully is going to become more of a prominent part of health innovation, but I think you are right, we haven't seen as much action there yet. It's been more downstream, hopefully moving upstream.

DR. RIVLIN: It is the private sector that controls the sugar in the drinks and volume of food, quality of fast food, all those things.

DR. SOUCAT: I'll take a risk to give you sort of a clear answer. I was a Commissioner of the Lancet Commission on investing in health, which was chaired by Larry Summers. We actually recommended a tax on sugar, and this is something that was being discussed. It's not a World Bank recommendation.

I think it should be on the table, as well as very frank conversations about the balance between what we were discussing, provider payments for diabetes, and what is actually always the problem, that we pay for illness, we don't pay for health.

How you develop a payment system that actually pays for health and reducing the number of people who develop diabetes rather than a payment system that rewards people for taking good care of people who have diabetes.

QUESTIONER: If I may just have a very quick follow up, I think you can

look at diabetes very much the same way you look at infectious disease. Antibiotics are wonderful, but the most important change to prevent infectious disease was sanitation and clean water.

DR. RIVLIN: We have run out of time. We could have one more question perhaps. Yes, Zeena?

QUESTIONER: I am Zeena from SughaVazhvu Healthcare in India. I think this panel is really well constructed because it really brings together all the learning since morning.

What I really see on the panel whether it is Brookings, IPIHD, or World Bank, and you know, your emphasis on labor. What I realized or feel, and maybe that is just my limited understanding of the sector, is when you talk about health and then you talk about ministries, it is kind of truncated, the Ministry of Health and Family Welfare, and then we talk about the service sectors within that, but if you are talking about diabetes being the indicator for how the country is doing on health, why wouldn't the conveners bring on the table people from Ministries of Finance, Ministries of Labor, all that.

Very honestly, if you do well on health, all the other ministries benefit, which are not currently relevant stakeholders and they don't have a hand in how policy is being shaped.

I see all of you playing a very important role there, and do you see that happening anywhere in the world? I can only speak on behalf of India, or from what I understand of India. Thank you.

DR. SOUCAT: Of course, I very much agree with you. I think it is exactly what is happening. This is a great suggestion, which I am going to follow up on, to get this idea of using diabetes as a central question with Ministries of Finance.

Here, I have an interesting experience to share. As African Development Bank and World Bank worked with Harvard University School of Public Health in

developing a leadership course for Ministers of Finance on Health. Believe me, that is not easy, to get Ministers of Finance to accept to sit for three days talking about health.

It is only the convening power actually, Harvard, the Bank. Over two years, we got 20 Ministers of Finance, and some very prestigious names.

It is very interesting when they come, when you ask them about their expectations, how are we going to spend three days on health. (Laughter) What are they going to tell us that we don't know, after half a day, that should be done.

On the third day, they are just full of excitement and what they are saying why were we not told that earlier. (Laughter) Why was it hidden from us. The key story there that they think was hidden from them is the efficiency story, the fact that there are such low hanging fruits, and there are such effective interventions in health.

Actually, one of the sectors where we have the most evidence about hard core cost effectiveness -- when you show them that and you show them low costs and the benefits and how this is actually very easily -- you can very easily transfer it into programs and actually serving the people, which they are politicians, so this is what they want, you see really that it becomes an eye opener.

We had a very interesting feedback from Ministers of Health after that, what did you do to them, they came back and they were completely changed. (Laughter)

I think the problem was typically when we speak to the financier, we always come to them asking for more money, but not actually conveying the message of efficiency, and they are very smart people, they can understand it.

One of the things, for example, that Larry Summers was saying, he was always puzzled when we were working on the Commission and when he was working in the U.S. Government, he said you would move from one meeting where the big issue was the escalating cost of health, to another meeting which was about jobs and employment, how vibrant the health care industry was.

These kinds of issues are really something that we can discuss with the

financier, and on the labor market, certainly we could see there is an unlimited demand for health care, but clearly in many countries when it comes to the labor market, we currently have a supply problem. There is demand, there is money to pay for health workers, but you just have constraints on supply. This is a whole other debate as to why. (Laughter) I am not going to get into the whole political economy of the political community.

SPEAKER: We are seeing innovations there, too, in terms of labor supply. We have heard about the team based approaches. I think certainly there is a lot of potential for people with less training than four years of college and four or five more years of graduate school to have a big impact on improving outcomes for conditions like diabetes at a much lower cost, and giving a chance for more productive wage growth than they have with their existing career opportunities.

Maybe we can get those meetings integrated for Larry.

DR. RIVLIN: We are going to have to close this event because we have run out of time. It is a very positive note to close on. I, for one, hope we can have something in further communication that comes out of this meeting today that will push these ideas forward around the world.

MR. McCLELLAN: And there will be more to come on this.

DR. RIVLIN: There will be more to come. Mark, do you have closing remarks?

MR. McCLELLAN: I would just like to add to that point, you all have seen the case studies, you have heard the perspectives from around the world today. Clearly, there are similar problems being faced in all countries, developed and less developed. Clearly, there are globally relevant innovations in care taking place, and globally relevant lessons for policy makers that should be considered to accelerate this progress.

We really appreciated the opportunity to have support from the

Commonwealth Fund, to be a piece of their efforts on trying to promote better care and greater efficiency worldwide, as well as the Merkin initiative, which is all about bringing some of these new perspectives to clinicians who may not have typically thought in these ways about prevention and things they can do, and actually take on accountability for getting to better outcomes for conditions like diabetes.

More to come. I'd like to also give thanks especially to our staff here at Brookings that made this possible. Andrea Toomey, Kate Samuels, Maggie Darling, Lizzie Drobnik, Monica Mayday, Joanna Classman, Michelle Shagean, and Elize Presser, and we are still on time.

Thank you all, especially thank you very much for coming, and we look forward to continuing to work with you. Thank you.

DR. RIVLIN: Thank you. (Applause)

* * * * *

CERTIFICATE OF NOTARY PUBLIC

I, Carleton J. Anderson, III do hereby certify that the forgoing electronic file when originally transmitted was reduced to text at my direction; that said transcript is a true record of the proceedings therein referenced; that I am neither counsel for, related to, nor employed by any of the parties to the action in which these proceedings were taken; and, furthermore, that I am neither a relative or employee of any attorney or counsel employed by the parties hereto, nor financially or otherwise interested in the outcome of this action.

Carleton J. Anderson, III

(Signature and Seal on File)

Notary Public in and for the Commonwealth of Virginia

Commission No. 351998

Expires: November 30, 2016