Music

Mark Masselli: This is Conversations on Healthcare. I am Mark Masselli.

Margaret Flinter: And I am Margaret Flinter.

Mark Masselli: Well Margaret one of the key objectives of the Affordable Care Act is to improve the quality of care by rewarding practices for better outcomes with financial incentives.

Margaret Flinter: Well that's right Mark and within 3 years the Obama administration wants the quality of care delivered to be considered for 49 out of $10 of reimbursements for treating Medicare patients 90% of all dollars.

Mark Masselli: Wow. The new financial incentives for doctors called the physician value based payment modifier allows the federal government to boost or lower the amount it reimburses doctors based on how they score on some 250 quality measures as well as how much their patient's cost Medicare.

Margaret Flinter: Well more than 1100 large practices participated in the first year of the program Mark and there is also some say were disappointing only 14 of the participating a large practice groups are receiving an increase in compensation. For improved quality most saw a no change at all almost see their compensation remained flat an d11 practices well they scored low enough to see their compensation actually decline.

Mark Masselli: It's only the first year of the program and it only applies to a large practices now but Margaret I suspect within a few years the data collection will be easier though some participating practices are expressing disappointment for all of their quality reporting efforts they really didn't see a lot of changes.

Margaret Flinter: Well so much of what we are seeing in healthcare constitutes a change in culture and the results are going to take time certainly you know one question many people raises did we get the measures right and that scenario that will get a lot of attention so we feel for them in that but our guest today is very involved in changing the culture of healthcare from a technology standpoint. Dr. Larry Chu is the Executive Director of Stanford Medicine X and is seeking to catalyze health tech development that will foster more patients centered care as we move forward.

Mark Masselli: Lori Robertson, Managing Editor of FactCheck.org looks at more false claims spoken about health policy in the public domain but no matter what the topic you can hear all of our shows by going to chcradio.com.

Margaret Flinter: And as always if you have comments please email us at chcradio@chc1.com or find us on Facebook or Twitter or CHC radio because we love to hear from you. We will get to our interview with Dr. Larry Chu in just a moment.

Mark Masselli: But here is our producer Marianne O'Hare with this week's headline news.

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Marianne O'Hare: I am Marianne O'Hare with these Healthcare Headlines. The end of April is approaching which means a closing window for uninsured Americans to gain health coverage or pay a larger penalty at tax time next year. The federal government allowed for the extended open enrollment, noting it, well some 16.4 million Americans have gained coverage under the Healthcare Law, some 20 million remain uninsured. This year's tax penalty for remaining uninsured in 2014 is $95 or 1% of income. Next year's penalty for remaining uninsured past this year's April 30th deadline $350 or 2% of income. And what about what the coverage is supposed to cover? The Mental Health Parity Law which passed in 2008 was supposed to insure patients seeking treatment for mental health or addiction issues would gain coverage that was on par with other medical and surgical care they relieved. But until recently the government only outlined how such parity would apply to commercial plans? Federal officials recently released a new rule governing mental health coverage for folks gaining coverage through Medicaid or chip which are funded jointly by state and federal agencies, a proposal would mean that plans no longer would have hard limits on coverage such as a certain number of mental health visits per year and if a patient were to be denied treatment for mental health or substance abuse disorder the insurer would have to explain why? There is still considered a significant shortage of mental health providers and services for the Medicaid population. The ECRI Institute is out with its top ten warnings on technology hazards and the patient safety, and alarm fatigue tops the list. Providers inundated with constant alarms from electronic health records are overriding at least half of the typical number of alerts they receive. Next up, infusion pump medication errors followed by CT radiation exposure in pediatric patients. The institute is also out with its top tech prediction for 2015. Disinfected robots top the list using infrared and other anti-microbial to reduce hospital acquired infections. The robots using new techniques such as ultraviolet light and hydrogen peroxide sprays to disinfect. And on the topic of alarm fatigue the increase of so called middle layer software aimed at running interference and sorting through which alarms should make it to the clinician. Google glass may not be called ubiquitous wearable in a general population but it's being re-tooled specifically for using the clinical setting expected to see an increase in head mounted technologies. I am Marianne O'Hare with these Healthcare Headlines.

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Mark Masselli: We are speaking today with Dr. Larry Chu, a practicing physician and an associate professor of anesthesia at Stanford University School of Medicine. He is the Executive Director of the Stanford's Medicine X. A conference seeking to inform the development of technology poise to have an impact on the future of medicine and patient centered healthcare. Dr. Chu runs several labs at Stanford including the Opioid Physiology Lab as well as the Anesthesia in Informatics Media Lab at Stanford. Dr. Chu

was the winner of several awards from the National Institute of Health including the RO1 and R13 and an independent science award. He earned his MS in Epidemiology at Stanford and is MD at Stanford's School of Medicine. Dr. Chu welcome to Conversations on Healthcare.

Dr. Larry Chu: Thanks for having me.

Mark Masselli: Yeah. And you are located in one of the most frontal regions of the world not in water though in technology and in innovation so Stanford obviously is the shadow of Silicon Valley and you found that Stanford's Medicine X with an idea that innovation in medicine and healthcare needs far more participation in interaction from the patient perspective. Can you tell our listeners what was the catalyst that spurred you to launch this innovative conference and who were some of the early participants and what were some of your initial goals?

Dr. Larry Chu: It really started about 5 years ago when I did my first conference at Stanford and during that time I had many people contacted in social media and one of those people happen to be Hugo Campos. She is a patient who has internal cardiac defibrillator and in fact he was treated at Stanford and he approached to me in social media. We met in person and one of the things that we talked about is why isn't it that patient are represented at Academic Medical Conferences a patient who didn't have a seat at the table so based on that series of conversations I made a plan where my first conference at Stanford was going to include patient and I actually fact them up but right in front of the main stage and we had an incredible experience. A lot of empathy was gained in both patients and healthcare provides so when I decided to do Medicine X I need a commitment from Day 1 that at least 10% of the seats were going to go to patients and to be treated as scholarship program and the rest is history as they say.

Margaret Flinter: Well I want to talk a little bit more about this patient centered approach that you fostered at Medicine X and I think in my right that years was the first two – the first conference that actively engaged participants from a variety of organizations like patients like me, 23 and me and all organizations made up of people who found vital connections, support camaraderie, information among folks facing similar challenges and a process of course giving researchers and developers as well as other patients incredible platform to share information but maybe you could share with our listeners you said you developed new insights and certainly empathy but tells us a little bit more about those new insights sort of being gained.

Dr. Larry Chu: Well I think first step is to really understanding who is part of a talk station so our friend at simpler which is a social media analytics firm pulled some analysis for us on the type of conversation that happened at healthcare conferences and he looked at all conferences across healthcare and he looked at the voice in those conversations. 9% oppositions and 1% are patients and the rest of – so it really looks like an industry talking to itself and the whole mission (inaudible 09:13) ask what can happen when all of the – are at the table and especially when we look at outside of healthcare or traditionally people who have been excluded well if bring them to the table

when we have a conversation what happens. So when you look at the conversations take hold at the Medicine X you see something quite different. You see about a third healthcare provider and the last are third party and so that does change the conversation because talk differently in healthcare medicine whenever we want that at the table. It makes I think everyone focus a little bit more on how might we work on problems that really matter to patients? How we want to focus on problems that really matter to physicians unless on (inaudible 10:02) technology and everybody is going to love it and it's going to disrupt healthcare but we don't want to bring the conversation back to why we are all doing it in the first place.

Mark Masselli: Well we are speaking to folks who talked differently health tech developers are clearly adding thousands of health related products to the marketplace from the ever increasing number of variables to sensors and apps that monitor health. I don't know about you but I am getting daily emails about the Apple Watch so tell our listeners how Medicine X serves to guide these developers to create technology that really truly benefits patients?

Dr. Larry Chu: I don't know if you have been showing Apple. They launched something called research kit and it really seeks a democratized medical research by letting anyone participate through the Smartphone so the article that was written talks about the genesis of that idea and how it actually started three years ago at Medicine X and it was the conversation that happened after a main stage talk by Stephen Friend from Sage Bionetworks and the idea was really bringing patient in to the research process by really allowing anyone to participate and share the idea. So when you have technologies and your researches in the room even if the technology, the accolades three years wasn't ready put on time those ideas has planted those trends amid and we see new things moving to the market. New patients and engaged patients that work with us on Medicine X they in my mind are really those market leaders, those people who are fixed for month ahead of everyone else in terms of what's going to be in the industry and what they are doing today is going to be what people will be doing in 6 to 12 months, one that, that's called tracking your own devices to add functionality and to advocating for open access and showing the data and so what technology industry needs to do is really to think differently about how they develop these digital health technologies many of which are beaten up by Samsung, Microsoft, Google, Apple consumer electronics companies and we have to help them understand that the way you develop a digital health is not the same way you develop consumer electronics and often times as soon as you engineer for one disease, diabetes is not going to be the same solution someone who has rheumatoid arthritis. And that's the real challenge I think.

Margaret Flinter: Dr. Chu you said yourself I think that there is a challenge in communicating the right ideas to the medical innovation community and the technologists are often confused by how the process of how the medical innovation works but certainly all of us who have been in healthcare learned a long time ago that it would be 17 years from the discovery of something in the lab to its applicability at the bedside but that really doesn't seem to apply so much anymore in our current area of

development with everything developing so rapidly. I know in Mark's introduction he talked about your work with the opioid physiology lab but here you are engaged in something which the issue of opioids, the use of opioids, the overuse of opioids, the misuse, addiction, can you pull the thread for us a little bit on how does it work on the one hand in that kind of bench science area and the engagement of patient's, technologists, innovators on the other come together. Are you looking to draw any connection in that particular area?

Dr. Larry Chu: Oh that's a good question. In some ways there are two parts of my life that operated parallel universal and in another part there is a threat that I want to hold on, I want to connect that.

Margaret Flinter: Great.

Dr. Larry Chu: I think it's very much a story about how science used to be done and how science might be done better. So the work that I have done in opioids you know that's all funded through traditional National Institutes of Health Funding Mechanisms and as you say a very long process to bring even translational character researches which is what I do to real solutions at the bedside. It's something that I think reflects the tremendous resources that are needed to do the type of work that I have done where I am looking at opioids in humans and all the inherited risks and that causes and the types of medical supervision that, that requires and we somehow have to find a compromise between the two when we look at digital health. It took me 5 years to study 150 patients and then I look at Apple launched the research chip platforms and I think in later week they had tens of thousands of patients signing up and completing these studies and so I asked myself Gosh this is a new model of science and we are going to need people that can bridge these two worlds and hopefully I have some experience on both sides to bring in other people too as well. There has to be some way that we can connect with two and I think people are trying to figure that out right now.

Mark Masselli: We are speaking today with Dr. Larry Chu, a practicing physician and associate professor of anesthesia at Stanford University School of Medicine. He is also the Executive Director of Stanford's Medicine X that conference seeking to inform the development of technology poised to have an impact on the future of medicine and patient centered healthcare. Dr. Chu runs several labs at Stanford including the opioid physiology lab as well as the Anesthesia in Informatics Media Lab where he conducts research on the impact of technology on medicine and medical training and Medicine X has become much more than a yearly conference during your few short years and it's not become year long information sharing and training platform for all interested parties around the globe that tap in. I would like to know more about that and I am wondering sort of that new model of science or delivery what tools are you using, where is your reach, who is able to engage in this process?

Dr. Larry Chu: One of these mutual stat that we need to a better job of anything in medicine and in medical education, in social media. The example that I give is Medical X you know we are conference that takes place on the Stanford Campus but the reach

doesn't stop at the 500 people in the room. Last year those 500 people through social media generated 190 million social media impression. Our vide live stream reached 69 countries so social media is a powerful way to disseminate information and to amplify knowledge and we are not using any math in medical education and in healthcare but I think about many things I hope changing the culture and social media is certainly one underutilized resource. We are also moving our lines to massive open online courses. Medicine X started our chatting initiative last year where we are launching a series of courses through Stanford's OpenEdX new platform and they are all on topics that are gaps in medical education from patients centered participatory medicines to a course on design thinking for healthcare. We have a course called engagement power in me that's looking at the patient engagement and behavior change. So the idea is for us to kind of teach another curriculum online to help supplement those gaps that we see in the healthcare curriculum.

Margaret Flinter: So with all of that what's next for Medicine X? You had amazing participants in the past talking about telemedicine, mobile technology, redesigning healthcare spaces, patients empowerment so what's on the agenda for this year?

Dr. Larry Chu: This year part of what we are going to see really reflects what our patients (inaudible 18:39)? They are on our planning committee. They are on our executive board and they help us also determine direction in the core teams and what we explore each year. This year we are going to have a core team on precision medicine as well as a core team on population health but from the patient perspective to also one on growing up aging and adjusting and looking at healthcare and across the lifespan and also we have a core team on misconceptions and misperceptions looking at ignorance in healthcare and how they can impact the quality and the type of care that we receive. We also have another core team on payers and looking at payers as the partners in healthcare.

Margaret Flinter: And for any of our listeners who might want to try and join on can you just show us this when the conference starts?

Dr. Larry Chu: Sure. We are – Medicine X conference on September 25th to 27th on the Stanford campus and then we have our new conference which looks at a future medical education from – September 23rd and 24th.

Mark Masselli: We have been speaking with Dr. Larry Chu, an associate professor of anesthesia at Stanford University School of Medicine and Executive Director of the Stanford's Medicine X, a unique conference seeking to catalyst health tech development with a focus on patient centered care. You could learn more about his work by going to medicinex.stanford.edu or you can follow him on Twitter at Larry Chu. Dr. Chu thank you so much for joining us on Conversations on Healthcare.

Dr. Larry Chu: Thank you for having me. It's been a pleasure.

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Mark Masselli: At Conversations on Healthcare we want our audience to be truly in the know when it comes to the facts about Healthcare Reform and Policy. Lori Robertson is an award winning Journalist and Managing Editor of FactCheck.Org a non-partisan, non-profit consumer advocate for voters that aim to reduce the level of deception in US politics. Lori what have you got for us this week?

Lori Robertson: Well Kentucky senator Rand Paul has now officially declared that he will run for president. Paul's April 7th announcement prompted us to take a look back at claims by Paul that we have reviewed in the past and some concerned healthcare. In 2013 for instance Paul wrongly said that under the Affordable Care Act you will go to jail if you don't buy health insurance and refused to pay the tax penalty. The law actually states that those who don't pay the penalty for not having insurance can't be subject to any criminal prosecution. Shortly after the law passed the IRS commissioner at that time said the law precludes jail. The law also says that the IRS can't use lean or levies to enforce payment of the penalty. What can the IRS do to enforce compliance? The commissioner said in 2010 that violators could face offsets against future tax refund. More recently in February Paul talked about vaccinations in a TV interview wrongly saying that many children have developed profound mental disorders after vaccination. We found that severe reactions have occurred in extremely rare cases but there is no evidence that any currently recommended vaccine causes mental disorders in otherwise healthy children. Paul later walked back his comments telling the New York Times that he believes vaccines are safe and effective. And that's my FactCheck for this week. For more on past claims from Senator Rand Paul visit our website at FactCheck.org.

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Margaret Flinter: FactCheck.org is committed to factual accuracy from the country's major political players and is a project of the Anna Bird Public Policy Center at the University of Pennsylvania. If you have a fact that you would like checked Email us at CHCradio.com. We will have FactCheck.org Lori Robertson check it out for you here on Conversations on Healthcare.

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Mark Masselli: Each week conversations highlight a bright idea about how to make wellness a part of our communities in everyday lives. Following is a common experience among the elderly and that is not good news.

If you are over 65 and you fall and broken your hip 25% of them will die within 12 months. Another 25% will never be able to live independently and a full 75% will never regain full mobility.

Mark Masselli: That statistic out former Airbag executive (inaudible 23:12) thinking what if you could apply the technology used in airbags to create variable devices that protect a person from the impact of falling.

What I am suggesting is that we make that same strategic shift that the auto industry did and we begin focusing on intelligent protection over elderly.

Mark Masselli: So they did the research and found a combination of accelerometer's and other sensors on the band worn around the waist could deploy within 6 milliseconds of sensing an eminent fall and protective bags unfurl around the hip joints before impact with a floor.

Physics has taught us that bodies in motion stay in motion until they meet in a movable object right. In this case the movable object is the living room floor. With the right technology we can ensure that these people that meet that inevitable and movable object can not only survive that accident, they can walk away.

Mark Masselli: He founded active protect technologies and while his initial focus was providing a significant barrier to devastating injury in adults he has additional potential markets as well.

With this type of technology we can protect against concoctions. We can now protect cumulative patients. We can protect postal workers when it's (inaudible 24:23).

Mark Masselli: Assembled retooling of airbag technology in a wearable device that could greatly reduce the devastation of hip fractures leading to better health outcomes, lower health cost and better quality of life. Now that's a bright idea.

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Margaret Flinter: This is Conversations on Healthcare. I am Margaret Flinter.

Mark Masselli: And I am Mark Masselli. Peace and Health.

Conversations on Healthcare broadcast from the campus of WESU at Wesleyan University.

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