Mark Masselli: This is Conversations on Health Care. I am Mark Masselli.

Margaret Flinter: And I am Margaret Flinter.

Mark Masselli: Margaret, The Affordable Care Act one-year anniversary last week really turned out to be an opportunity for the administration to get a strong message out to the public about the law, and I think the administration officials realize that social networks may be the way to go. I thought it was interesting to hear how young adults are being targeted to spread the word about the benefits of the law. And Margaret, I didn't know that the Department of Health had created a Facebook page devoted to answering questions about the law applies to young adults and their parents.

Margaret Flinter: Well, we have consistently seen from many of our guests on the show that this administration has a real commitment to using technology and to being kind of hip and cool with the next generation about communication, and that's great. And the law does apply to young adults in a big way. The fact that children or young adults, I should say, up to age 26, can stay on their parents' insurance plan has been one of the most popular benefits of the Affordable Care Act. But to get your point, Mark, social media is all around this in health care these days. I thought our guest last week, Cecile Richards, really had some fascinating insights to share about Planned Parenthood strategy around social media, part of that being a 24-hour texting and chatting program, so that people anywhere can reach Planned Parenthood staff person anytime with the question they have. That's really about organizations finding out how to best serve their patients.

Mark Masselli: It really is, and I don't mean to dampen the tone here but as much of these innovations are good and really spark their creative energy in young people, it's also important especially for teams to look closely at their relationship with social media and health implications. We are seeing more and more cases of cyber-bullying _____ 1:46 and even Facebook depression, it's being called. Questions about social media are now part of the American Academy of Pediatrics' new recommendations about what should be part of the medical history doctors take of kids in ages all throughout their young adult life.

Margaret Flinter: A really important point that you bring up, Mark, and kidos to the American Academy of Pediatrics for recognizing this. Who would have predicted this one 10 years that it needs to be part of the conversation around health. And I do think today's health care consumers, whether they are kids or adults, really value engagement. They want that open communication. They want involvement in the option of using communication technologies that have become part of everyday living in every other sphere of their lives.

Mark Masselli: That's right. And here at Conversations on Health, we are also engaged in having good conversations. We are happy to have a guest with us

today, who can talk about the role of technology in health care. Dr. Paul Tang is Chief Innovation and Technology Officer at Palo Alto Medical Foundation in California. Palo Alto was an early pioneer in the adoption of electronic health records and patient medical records. And the organization is recognized today not only as a leader in health IT but also as paving the way with social media and health care.

Margaret Flinter: And in addition to his leadership at Palo Alto, Dr. Tang is very involved on the national level. He serves as Vice Chair of the Federal Health Information Technology Policy Committee and chairs the Meaningful Use Workgroup. We are delighted that he can be here with us today to talk about the Palo Alto experience and how it supplies to the widespread of adoption of HIT around the country. And no matter what the story, you can hear all of our shows on our website Chcradio.com. Subscribe to iTunes and get our show regularly downloaded. Or hang on to our every word and read a transcript of one of our shows by visiting us at Chcradio.com. And don't forget, if you are an active user of social media yourself, join us on Facebook and follow us on Twitter.

Mark Masselli: We hope you do. And as always, if you have feedback, email us at Chcradio.com. We would love to hear from you. Before we speak with Dr. Paul Tang, let's check in with our producer Loren Bonner with Headline News.

Loren Bonner: I am Loren Bonner with this week's Headline News. The Bipartisan Policy Center has launched a new one-year Nutrition and Physical Activity Initiative that will focus on strengthening existing policies, programs and best practices to curb obesity for both children and adults. Specifically, the initiative will focus on improving nutrition education breaking down barriers to physical activity and speeding up access to healthy food choices. The program will be led by former HHS Secretaries Donna Shalala and Mike Leavitt, and former Agriculture Secretaries Dan Glickman and Ann Veneman. Certain rules in the new health care law that were designed to protect consumers are now being revised by the Department of Labor in response to concerns raised by insurers. The rules apply to specific tools that give consumers more leverage over appeals claims they make to insurance companies, and they were supposed to take effect this July. A new study shed some light on the debate over Medicare's future. The Kaiser Family Foundation found that raising Medicare's eligibility age by two years to 67 instead of 65 would only shift cost to employers and younger people. Those costs could total more than $2,000 a year for some individuals. Medicare is widely viewed as financially unstable. Raising the eligibility age is one of the leading fixes up for discussion.

Mark Masselli: This is Conversations on Health Care. Today, we are speaking with Dr. Paul Tang, Vice President and Chief Innovation and Technology Officer at Palo Alto Medical Foundation as well as a practicing internist there. Dr. Tang also serves as Vice Chair of the Federal Health Information Technology Policy Committee and chairs its Meaningful Use Workgroup. Welcome, Dr. Tang.

Dr. Paul Tang: Thank you.

Mark Masselli: The Palo Alto Medical Foundation grew from one clinic in Palo Alto, California into not-for-profit care organization with medical offices in more than 15 cities throughout the Bay Area in the course of its 80-year history. You are a large and interconnected health care organization, and we know that health information technology plays a prominent role in the way you manage health care. What was it about Palo Alto's infrastructure as a community-based multi-specialty group practice that led to its early adoption of electronic health record systems in '99 and the personal health record system in 2001? And how are these systems used across your organization?

Dr. Paul Tang: Well, medicine is an information kind of a practice, and we have always focused on quality of care and quality of improvement. We have had those kinds of projects in an ongoing fashion. But in the late 90s, we concluded that you just couldn't deliver high quality care when you rely on paper records. I mean just like the rest of any other industry doesn't rely on paper record system, why should health care. I will have to admit that on top of that, back around 1999 which we will recognize as the _____ 6:59 dotcom era, we were having trouble hiring our non-clinical work staff. And with paper records, we got 747 inches behind filing paper records. So we made the decision around 1996 to invest in electronic health records, and we haven't looked back. You also mentioned – so you talked about health information technology. I think this is not just for physicians and the health care professionals but it's also important for patients. So likewise, in the dotcom era, it was just natural to think that well, you should be able to talk to everybody over the Internet, and the question arose constantly "Well, why not doctors?" So we worked with our electronic health record vendor Epic to create a personal health record that was integrated with our electronic health record. So the personal health record is patient facing; electronic health record is physician facing, and we could all share the common record. So we were the first in the country that installed Epic's MyChart product.

Margaret Flinter: Now, Dr. Tang, we are really curious to hear more about this, and I understand there is something called the PAMFOnline is your e-health service that allows patients to view their own electronic health record. And because you are leaders in social media and health care as well, you have a mobile app called MyChart. We would like to hear what are the most popular features that patients seek out in their own health record and also in MyChart? And maybe could you shed on some light on who are the patients that use the technology? Do you see this sorting out by age or people with particular kinds of health challenges or this being Palo Alto, is everybody your electronic health record?

Dr. Paul Tang: Good question. Well, first of all, they like getting access to the record, who wouldn't. So that's point one. But I will tell you there are two most

popular features. One is getting your lab test results and second is messaging your physician. So everyone is anxious to receive their lab test results as quickly as possible. In the old days, you had to wait for your physician to mail or call you with the results or forget to. So now, it's guaranteed really to receive your results and often that's the same day as your blood is drawn. So, that's a real crowd-pleaser, and it prevents things from falling to the cracks. So if you didn't get a test result in the past, some think what happens if it was abnormal. Today, that just doesn't happen. You asked about who is online, pretty much everybody. It does reflect our patient population. But probably as you might guess, people who have more chronic illnesses are more likely to sign up and be active. I can give you some statistics about our age groups, and it's very, very interesting. So currently, about 56%, over half of the patients who are in their 60s are on line with this. 45% of the folks in their 70s and more than a quarter of folks over 80 years old are on line with us. And our current oldest member is 104 years old who is on line. So this is engaging everyone, and it's certainly breaking down the sort of the digital age barrier.

Mark Masselli: And Dr. Blumenthal has announced he will be stepping down as the national coordinator this spring, and he certainly worked tirelessly on major HIT efforts throughout the country, and he has laid a strong foundation. But widespread adoption of Health IT will continue to be a long journey, and most of literature out there on HIT shows positive effects for providers and patients. But the evidence often lags behind the implementation of HIT. Is there any evidence you can share that could inform the discussion around widespread adoption in use of HIT? And what are the problem areas that still need to be addressed?

Dr. Paul Tang: We have taken two stages. So one of the reasons for the slow adoption is it's just really hard, particularly with the physician side not because their _____ 11:02 to change that might have been true 10 years ago but really physicians are adopting this technology. But it just changes their workflow completely. And so, that takes time to adjust to and then to become proficient. But in terms of advising others, I will say that no one regrets making that change. So after the hard steep learning curve, it really becomes a way, and a central way, to practice medicine. On the patient side, which also want to advocate for themselves, but they also turn out to be gentle pushers to the doctors, say, "Hey, why don't you get online?" It's sort of a 'try till like it' kind of feature and sort of a 'word of mouth' kind of application. At least that's what it was initially. But I would say right now, patients are rapidly adopting the technology. It's much easier. So once they experience it that they sort of 'try till like it' feature, they really like it; they really like the idea. They can get access to information anytime and start playing a more active role in their health. So, that becomes very infectious, not only with the patients but, as I said, with the doctors as well. So the first phase really is getting access to information, and then you start learning that "Well, gosh, I can use this to improve my own – manage my own health, taking more active role and managing my own health." That's from the patient's perspective. So we are disseminating tools that allow you to track, let's say, whether it's your

weight or your steps, your blood pressure, or your glucose if you are a diabetic, and start seeing how your everyday activities affect those parameters and start getting in control of your disease. So this sort of puts the patient on the health care team, and I think that's a really healthy model and one that will take us into the new era in Health Reform and an accountable care organization.

Margaret Flinter: Dr. Tang, you also served on the federal Health Information Technology Policy Committee and specifically its Meaningful Use Workgroup. Now, Meaningful Use is a wonderful phrase. It's also an incentive program established under the American Reinvestment and Recovery Act, and it's a set of principles for doctors, dentists, nurse practitioners, hospitals to use as they establish their own electronic health records. And it has a goal of an electronic health record available to all Americans by the year 2014. For some, they are more interested in getting to the incentive payment. For others, it's getting to Meaningful Use. But tell us about those principles of Meaningful Use of all the things we could have chosen from. Why were those principles chosen?

Dr. Paul Tang: Well, the principles were chosen because even in the high-tech legislation, which is you mentioned came in the Stimulus Bill, the Reinvestment and Recovery Act, the Congress thought it's not sort of a cash for software kind of a program. They were really interested in getting the value out of this software. So in order to qualify for the incentives, you had to only adopt and implement the software but you had to make meaningful or effective use of it, and the goal was to improve the outcomes. So the Meaningful Use Workgroup developed sort of a framework that the HIT Policy Committee later recommended to CMS and the Office of the National Coordinator around outcomes in the five categories, the sort of four clinical outcome categories and one foundational category. The foundational one is privacy and security. You have got to have it, otherwise no progress is made, no one will trust the system. So, that's foundational. The other four clinical care categories, the first one is probably obvious, everybody would think you need to have these systems to improve the safety, the quality, the efficiency of health care. But we also added and reduced disparities in care. And one of the ways to do that is to measure, is to capture the kind of different demographics of patients, so we can understand disparities in care and work to reduce them or eliminate them. The second category is probably one of my favorites, and that is to engage patients and their families. And as I say, once we put all this information into electronic format, it would be shame just to keep it within the health care system. We have got to share with patients, so that they can go on to manage their own health more actively. So that's the second one. The third category talks about care coordination. We all know that when you go from one doctor to another, your information doesn't always follow, and that's a detriment to your health. So with electronic records and with information exchange, we want to help address that problem and have better care coordination. And the fourth is population and public health. We have seen whether it's swine flu or avian flu, global health threats come and go, and you need to have up-to- date information, wouldn't it be nice if you are in

constant communication with the public health agencies, so that every individual could have the benefit of that information.

Mark Masselli: This is Conversations on Health Care. Today, we are speaking with Dr. Paul Tang, Chief Innovation and Technology Officer at the Palo Alto Medical Foundation, Vice Chair of the Federal Health Information Technology Policy Committee and Chair of its Meaningful Use Workgroup. Dr. Tang, as you were saying, Meaningful Use is obviously very complex process with the rollout taking place in many stages. I would like to get into the weeds a little. We understand you are expected to deliver your formal recommendations on Meaningful Use Stage 2 and just for our listeners, there are three stages and we are right now at Stage 1, and your group has been working on Stage 2. What does Stage 2 criterion encompass and build upon, and how does it fit into the larger HIT strategy plan for the nation?

Dr. Paul Tang: As you mentioned, there is three stages, and roughly Stage 1 is getting information into electronic form. So, that's getting it into structured information so that the computer can process it. Stage 2 is going to focus on information exchange. So, that helps us coordinate the care, that helps us disseminate the information to the patients, and it helps us to act more like accountable care organizations in consistent with Health Reform. And Stage 3 is really to achieve that last goal which is to measure and continuously improve the health outcomes. So we are currently working on recommendations for Stage 2. We will finish that process by the middle of this year. Then the Department of Health and Human Services goes through their rulemaking process that will end up with what's called an NPRM, Notice of Proposed Rulemaking, by the end of this calendar year and come out with their final rule in middle of the next year. So we are focusing, again, on the exchange of information both among the health care providers but also with patients. So you will see proposals from us that say we have got to make sure that patients have access to the information, that they have timely access and they can carry that information with them. One of the example recommendations is to add the capability of performing what we call Secure Patient Messaging. That's where patients can message electronically with their doctors.

Margaret Flinter: Dr. Tang, in addition to the other committees that you serve on – and there are so many of them – you have also chaired the National Quality Forum's Health Information Technology Expert Panel. Quality obviously covers an enormous waterfront in health care. But I would like to drill it down to the level of the impact on your medical practices. Certainly, in outpatient care and primary care, we know what we don't do is often as much a problem as what we do do, particularly around prevention and screening and early detection. When you look back over these last 10 years, can you see that the practices that you lead have made real progress in applying the principles of prevention and screening and early detection because of your electronic health records?

Dr. Paul Tang: Absolutely. I think this measurement of quality and feeding it back to both the physicians and to the patients is going to be a transformative piece that carries on through path the 2014 date of the Meaningful Use objective, Meaningful Use program. So in the past, we have had public reporting. They have used quality measures. But most of the quality measures have depended on claims data or billing data and administrative databases. That's only a surrogate for what you would really like to measure, which is what kind of care is being delivered whether it's care for disease or, as you mentioned, preventing disease. And so a new phrase has been coined "clinical quality measures," and what that means is to define quality measures using clinical data out of electronic health records system. So as the country implements these electronic health record systems, we are going to have a rich set of clinical data to be able to draw upon and create much better measures of our quality. So since we have had the benefit of using electronic health record systems for over a decade, we have had some of the benefits of having that data available to us. So we have defined quality measures for our own organization that reflect both the clinical guideline and use the clinical data from electronic health record system. The other thing we do is we make that available in an unblended fashion inside our organization. So I can look at the quality measures for any physician in our group. Now, I imagine this kind of information is going to be available on the Internet not too far in the future, and that helps people understand what they are doing today. In addition to that, we have clinical decision support rules that operate within the electronic health record system to remind you of things that may be applicable to the patient you are seeing today. So a combination of good quality measures that show you what you are doing today and the clinical decision support to help you continuously improve upon your performance is a combination that's transformative. So for example, in diabetes, something called A1c is a measure of control of diabetes, and the country's norm is around 50%. 50% of diabetics in this country have their diabetes under control. In our organization, it's over 70%, and I think it's a combination of the transparency in the clinical decision support and having electronic health record system.

Mark Masselli: Dr. Tang, one question we would like to ask all of our guests, when you look around the country and the world, what do you see in terms of innovation and who should our listeners at Conversations be keeping an eye on?

Dr. Paul Tang: Well, I think prominent organizations, the Partners HealthCare System in Boston, that have developed their own electronic health record system and have published numerous papers in terms of randomized clinical trials showing the benefits of these things. Geisinger in Pennsylvania is another health system that has used a commercial system, actually the one we use, to accomplish a lot of great results and things involving patient-centered medical homes for example. Kaiser is a large organization in the country and it also uses an electronic health record system to understand its population and really has achieved great results using electronic health record systems.

Margaret Flinter: Today, we have been speaking with Dr. Paul Tang from the Palo Alto Medical Foundation. Dr. Tang also serves as Vice Chair of the Federal Health Information Technology Policy Committee and Chair of the Meaningful Use Workgroup. Dr. Tang, thank you so much for joining us today on Conversations.

Dr. Paul Tang: Well, thank you.

Mark Masselli: Each week, Conversations highlights a bright idea about how to make wellness a part of our communities into everyday lives. This week's bright idea focuses on innovative Telepharmacy program that's been proven to enhance quality in patient care. Via Christi Health, a nonprofit health delivery network that operates hospitals in urban and rural parts of Kansas, began a Telepharmacy program in 2006 to strengthen the role hospital pharmacists play in clinical care. Many hospitals, especially those in rural areas, are unable to provide full-time pharmacy coverage which can have a negative impact in the quality and safety of patient care. Via Christi created a program that was available to provide optimal pharmacy coverage 24 hours a day, seven days a week to those hospitals who need it. The Telepharmacy program, now in 14 hospitals both inside and outside the Via Christi System, allows offsite pharmacists to review medication orders and patient medical records through a secured electronic network. Once the remote pharmacist checks all relevant medical information, such as patient's medical history, any allergies in recent lab results, they then authorize the hospital's pharmacy system to dispense the correct medication to the patient. The electronic record that is created also allows the nurse to scan the medication barcode at the patient's bedside when they administer the dose to the patient. Results have been positive. A study conducted at five hospitals in 2009 found that the program expanded hours of pharmacy services, reduced processing time, increased nurse satisfaction, freed up time for pharmacists to play a direct role in clinical care, and saved each hospital a projected $1 million a year. A program that's using pharmacist and technology to increase patient safety, reduce cost, enhance the quality of patient care and highlight the positive impact of health information technology, now that's a bright idea.

Margaret Flinter: This is Conversations on Health Care. I am Margaret Flinter.

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

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