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

Margaret Flinter: And I am Margaret Flinter.

Mark Masselli: Well Margaret enrollment may not be over. Some reprieve is on the way for Americans who failed to sign up for health coverage before the February 15th clues of open enrollment.

Margaret Flinter: Well that's right Mark. The administration announced a plan that would allow those who had not signed up for coverage to do so.

Mark Masselli: Then attacks penalty is automatically assessed and folks who remained uninsured by February 15th.

Margaret Flinter: And people will have to attest that they first became aware of the tax penalty while they were preparing their taxes. They still have to pay the penalty for remaining uninsured last year but by gaining coverage this year they will avoid most of the penalty for the remaining uninsured in 2015.

Mark Masselli: This is an extended open enrollment that really only applies to the folks living in the 37 states that rely on the federal exchange. However, states that setup their own exchanges can opt to extend their enrollment as well.

Margaret Flinter: And while the health laws find prentice continuing to be worked out we turn our attention to the media developers who are transforming care on the side of healthcare and technology. Our guest today is Dr. Yulun Wang who is the founder of in touch health and he is also a President of the American Telemedicine Association.

Mark Masselli: Here is over 50 patents his name including the first FDA approved surgical robot Aesop. He is since turned his attention to developing platforms for clinicians to do virtual visits. His so called robot doc should be quite interesting.

Margaret Flinter: Absolutely. And Lori Robertson Managing Editor of FactCheck.org will join us with another misstatements spoken about health policy in the public domain and to no matter what the topic you can hear all of our show by going to chcradio.com.

Mark Masselli: And as always if you have comments please email us at chcradio@chc.com or find us on Facebook or @chcradio on Twitter. We would love hearing from you.

Margaret Flinter: We will get to our interview with Dr. Yulun Wang in just a moment.

Mark Masselli: But first 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. And other states are weighing on the decision by the Department of Health and Human Services allowing extended open enrollment for the second round of insurance sign ups under the Affordable Care Act. The administration announced folks in the 37 states covered by the federal exchange will be able to still enroll for coverage for 2015 even though open enrollment ended February 15th. There is now a new extended period from March 15th to April 30th to gain coverage thus helping folks avoid tax penalties for their 2015 tax year. Now States like Kentucky have launched their own state exchanges are considering allowing the same. Meanwhile as a Supreme Court regime on whether language in the Affordable Care Act precludes folks buying insurance on the Federal Exchange qualifying for tax subsidies the language originally stated folks only buying on the state exchanges would qualify. There is no well Plan B from opponents of the healthcare law should the High Court repeal the basis for those subsidies. But 87% of Americans who have purchased insurance on the exchanges received some sort of tax subsidy. Millions of Americans who have lose coverage if the Supreme Court rules against upholding them. And the administration is also weighing in on employee insurance plans that don't cover hospital stays. Corporations employing largely low wage workers who now must be covered under the health law were selling employees on cheap plans that offered no hospital benefits. The administration saying these plans clearly don't fulfill the minimum requirements under the Health Law and would not be allowed as they would strap employees in subs-standard plans that would not cover catastrophic care. Turns out there maybe some actual wisdom in those teeth after all certainly finds stem cells found in a dental pulp of wisdom teeth are perfect incubators for growing coronial cells. Researchers found the pulp cells could be coaxed in the growing Autologous corneas to help prepare scarring from things like infection or other eye disease and pediatric allergies have been on the rise in recent decades and researches in Sweden may have found a contributing culprit. Babies raised in houses where dishes were cleaned in dishwashers versus by hand had 50% higher rates of allergies, eczema and other auto immune responses. Researches believed it has to do

with the growing trend hygiene hypothesis which assumes babies being raised in developed countries are growing up too clean with sanitizers that limit normal child to exposure to bacteria and pathogens thus inhibiting their natural immune system development. I am Marianne O'Hare with these healthcare headlines.

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Mark Masselli: And we are speaking today with Yulun Wang, PhD Chairman and CEO of InTouch Health, a global leader in Telehealth technologies and support. Dr. Wang is also a President Elect of the American Telemedicine Association, a non-profit organization dedicated to the full integration of telemedicine into healthcare systems. Mr. Wang is founder of Computer Motion Inc. which developed Aesop, the first FDA cleared surgical robot. Mr. Wang has more than a hundred patents his name. He received his PhD in Electrical Engineering specializing in robots from the University of California Santa Barbara. Dr. Wang welcome to Conversations on Healthcare.

Dr. Wang: Well thank you for having me.

Mark Masselli: You know you have really been at the cutting edge of the innovation in the healthcare space having created this first surgical robot approved by the FDA for use in the country Aesop. I wonder if you could share with our listeners what you learned from your early experiences and successes with health technologies we look at as fast amount of technological innovations in healthcare today and the changes that are abounding.

Dr. Wang: Well if we go all the way back to Aesop it was in the early 1990s. What we did was solving unmet need in a newly emerging field of surgery called minimal invasive surgery or more specifically laparoscopic surgery through a little tiny incision as opposed to a large incisions which had previously been the way surgeons worked and by using little incisions they needed to insert a camera into the patient's body that needed to be held by something or somebody in having someone else hold your camera was like someone else holding your eyes and so building a robotic arm which held the camera for the surgeon which was voice controlled directly by the surgeon we actually gave the surgeon back direct control of their eyes which then improved the quality of the procedure, the whole idea which has been kind of a guiding principle to my career over the last 25 years is trying to solve a problem which is a problem for the user, a problem for the healthcare system as a whole and then a problem which hopefully really brings benefit to society so you have to kind of overlap all of these requirements simultaneously.

Margaret Flinter: Well Dr. Wang maybe for the benefit of our listeners you could talk a little bit about how the robotic innovation in particular and again I think it's a metaphor for lots of other innovations has changed the way we train people, his assuring the new generation surgeons and do you have any metrics that illustrate the impact that the robotic technology in particular has had on care, cost and outcomes.

Dr. Wang: So I have been involved in basically two different movements, one is on the surgical robot side and the second is on the telemedicine robot side and on the surgical robot side where the whole idea of the surgical robots is to enable more complex surgeries to be done minimally invasively. When you take a particular procedure from an open procedure to a minimally invasive procedure using a robot there is a whole learning curve so take the one which really took off for robotic surgical systems which is via removing the prostate for men's prostate cancer and so the training process of that had to be done very, very carefully where there is a whole process of didactics laboratory setting, a process of mentorship, again the surgeon learning a new procedure but then having the benefit and a tool or robotic surgical system because without the robotic tool that transformation was actually not even possible on the telemedicine side using what we call remote presence robots where we are bringing a physician to the bed side of the patient from a far. The actual usage of the technology is quite easy. They can learn how to use the tools in a matter of minutes or tens of minutes oh but what has to happen is the whole workflow, the way a physician adjusts his or her workflow in terms of how they go about their day changes and in fact the healthcare system which is now deploying telemedicine they have to rethink about how they are going to be interacting with their patients, in what venue and what are the workflow in order to do that so for example one of the areas where we have done a lot of work is in Callistroke. The patient comes into the hospital which is perhaps a smaller hospital doesn't have an immediate access to a stroke neurologist. Now they page a stroke neurologist at a tertiary hospital or a larger hospital who can beam in to a telemedicine robot to help take care of that patient. That's a whole workflow which did not exist how that tertiary physician or sub-specialist interacts with the onsite physicians. All have to be kind of rethought and retooled so that people in a collaborative way know how to approach the whole system of care.

Mark Masselli: So they certainly were seen people using their smartphone, conducting with our provider and these are I think you have described them as not replacing the physician or the provider but extenders so what else are you sort of like seeing distant capabilities in diagnostic tools that I might carry on my iPhone and how's that world evolving?

Dr. Wang: The world is evolving very quickly and I will tell you it's an incredibly exciting place to be where we are going from kind of a cottage industry of healthcare delivery to where your local doc is the total range of healthcare services available to you as a patient that's changing where using a healthcare delivery system where virtualized care in other words you have the capabilities of the world at large at your disposal is the way things are happening so you got this aging population happening in the US and around the world. You have got a continuing increasing of complexity of medicine. It turns out there is about 200,000 medical journal articles published a year. It turns out in 1970 there were about 10 different medical subspecialties. Today there are 150 endovascular neurosurgeons, neurological intensivists. These types of sub-specialties didn't even exist ten years ago. If you are a patient you would want access to the best subspecialty that you could have so unevenly distributed quality of care and yet we want to deliver high quality care consistently and lowering the cost. Now the question is how do we do that and it's really through this kind of virtualized delivery of care that can happen. One huge moment which allows this evolution, one is the mobile devices so everybody is carrying around the second line which the mobile devices build on top is the Internet where a live interactions, real time interactions can be done all over the world now because the bandwidth and the quality of the Internet is now there and then furthermore the electronic digitization of healthcare information. So you can actually virtualize the delivery of care and I think that over the next decade it's going to completely revolutionize how healthcare delivery happens.

Margaret Flinter: Well the pace of innovation has been breathtaking in this area of virtualization of care and telemedicine and so innovation and speed and revolution on one side and then the concrete wall they sometimes smack up against called regulation and coverage which can really slowdown how we get these incredible innovations into the hands and the care of people who needed so how is this going on the regulatory or if I know we talked to the FDA about what app should be regulated versus not regulated while ago, how are those developments coming?

Dr. Wang: Well so you head up on one which we deal with all the times the FDA and the FDA you know their mandate around regulating medical devices is consistent and will stay I think the way it's been for the last minute decade so when you build a medical device as dictated by the FDA then it needs to be regulatory for example a stethoscope is a medical device. If you turn an iPhone into a stethoscope it's a medical device and needs to be appropriately dealt with from a regulatory standpoint and it's actually not that difficult in terms of understanding that line. The other big area of regulation is HIPAA compliance in terms of privacy and protection in terms of patient information and that bar is continually giving tighter and more rigorous quite honestly as it should because I think the concerns about hacking and cyber security are also continually

going up not only in healthcare but across our society as a whole. The other area which is important too is the whole areas of when can you practice and how is it legal to practice it and these are like things around licensure prudentially in privileging and this area is actually kind of messy and quite honestly it's probably going to stay messy but this is way so my role – so I am actually the current president of the ATA American Telemedicine Association and the ATA is really kind of the leading organization to drive clarity and hopefully improvement in these areas prudentially in licensing privileging and that's at the state level and their state laws involved in addition to federal laws and that's going to move at whatever the pace it continues to move but in general the legal environment is moving in the direction supportive of more and more telemedicine kind of interactions.

Mark Masselli: We are speaking to with Yulun Wang PhD, Chairman and CEO of InTough Health the global leader in telehealth technologies and support. Dr. Wang is current president of the American Telemedicine Association, a non-profit organization dedicated to promoting the full integration of telemedicine into the healthcare system around the world. Do you have a little more into the work of the American Telemedicine Association sounded like your focus had both state issues, federal issues, regulatory issues tell us a little bit about the association?

Dr. Wang: Yeah the American Telemedicine Association is based in Washington DC. It's been in existence since 1993 so it's a little over 20 years old. It is the largest and longest standing association in this field when telemedicine quite honestly has become in vogue its inexistence for several reasons and one is to actually drive improvement from our regulatory environment that we have actually been talking about provides a forum by which people meet and discuss the issues around telemedicine and in fact the annual meeting is coming up in May this year in Los Angeles where there is something like 500 presentations. There is also a large exhibit floor of 250 plus different companies so if someone wants to really learn about telemedicine quickly that's really the best place to go. It builds standards and guidelines on how to perform telemedicine safely and effectively for various applications and then as some of these new methodologies of telemedicine are being pushed forward like direct consumer telemedicine interactions where patients from perhaps their workplaces interacting with the primary care physicians via a telemedicine interaction there is a new type of accreditation process where companies offering this type of service are being accredited by the 80A in order to make sure that they comply with best practices.

Margaret Flinter: We are also trying to keep a global perspective and it's can you tell us for a moment what do you think the potential global health impact of these technologies are?

Dr. Wang: I think the opportunity for telemedicine in the global world is huge and perhaps even much more profound in some of these other markets than it is even in the United States because in the United States I think telemedicine is being driven not only to work on improving the quality of care but really working hard to reduce cost of the delivery system. In much of the emerging markets people don't even have access to care and so using telemedicine is the only way they even have access to care and so for example I was in a talk with one of our own people who are walk in our companies who have story within the last couple of weeks in Bolivia where they brought in an expert from Canada to help take care of a patient in the Bolivian Andes who have this genetic problem which nobody has been able to diagnose in Bolivia for his whole life and so he is properly diagnosed from a Canadian subspecialist I mean it's a life changing thing for that child and the town at large it was a town of like 1500 people in the Bolivian Andes and so these are the types of things which are possible with telemedicine in the world at large where there is just a large, large number of people who don't even have access to care where this can solve that problem.

Mark Masselli: We have been speaking today with Yulun Wang PhD, Chairman and CEO of InTouch Health, a global leader in Telehealth Technologies and Support. You can learn more about his work by going to intouchhealth.com or AmericanTelemed.org. Yulun thank you so much for joining us on Conversations on Healthcare today.

Dr. Wang: It's a real pleasure and thanks for bringing me on your show.

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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: President Barack Obama says the Affordable Care Act is working "a little better" than we anticipated. Based on the 11.4 million people who signed up for insurance on the exchanges during the recent open enrollment period, that is better than the administration anticipated but whereas been a Congressional Budget office Projection. The administrations preliminary estimates are at 11.4 million either signed up for or re-enrolled in private marketplace plans during that period. Obama says in the White House city that, that's great news and the Affordable Care Act is working a little

bit better than we anticipated. The Department of Health and Human Services told reporters in November just before open enrollment began that its anticipated enrollment will be 10.3 million and 11.2 million so 11.4 million is a little bit better than that but in HHS analysis that the figure would end up being lower by years and as some people wouldn't pay premiums or would take other insurance. The analysis estimated that between 9 million and 9.9 million would be the total for a marketplace enrollment in 2015. The administration's November analysis (inaudible 21:17) to the goal post saying it would take longer than CBO estimated for marketplace enrollment to grow. The CBO expects the major expansion of enrollment in the near future jumping to 21 million people in 2016 and then 25 million in 2017. HHS said that kind of growth could happen over 4 or 5 years instead and that's my FactCheck for this week. I am Lori Robertson, Managing Editor of FactCheck.Org.

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. Vin Lien Brown was a graduate student in nutritional science at NYU. She came to understand the enormous challenges of eating healthy foods while doing fieldwork with some of New York City's more impoverished populations and when it came time to do her thesis she thought why not write a cookbook of health recipes aimed at the millions of Americans living on food stamps or SNAP stipends of \$4 a day.

\$4 a day is sort of a general rule of thumb for around how much a person truly is qualifying for food stamps would have to eat per day so we felt like that was a more useful sort of explanation to explain like a burgeoning.

Mark Masselli: She learned like poverty was a serious issue the lack of access to nutritious food was also contributing to obesity and poor health in many of these families. So she conducted an extensive research on shopping and healthy cooking techniques and crafted good and cheap. A cookbook aimed at not only teaching these families how to shop for affordable produce but how to get an entire family in a more healthy way.

I really wanted to arm people with the ability to walk into a grocery store and say like okay this is my sale. I can totally make something to (inaudible 23:34). I know how to do that and in order to really get by on such a small amount of money you need to be able to be adaptable.

Mark Masselli: Prosthesis were so well received. She launched a kick started campaign to raise enough money to make the book available at soup kitchens women's shelters in community health centers. And for every copy she sells she gives one free copy to a school, a health center or an organization that requested.

The idea is that this is a cookbook that needs to be put in the pants and someone who really can't afford the cookbook so that's what the idea of buy one give one came from with sort of like there are people out there who are really excited about this issue and have money to spend on it and who can appreciate that if they can sort of help to subsidize those who can't.

Mark Masselli: Well a new version of her book comes out in June. She has made her book available as a free PDF download to anyone who wants it. Good and cheap, a cookbook aimed at the food stand population or anyone else on fixed income for that matter helping to positively influence their diets, obesity and well-being. 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 in health.

Conversations on Healthcare broadcast from the campus of WESU at Wesleyan University, streaming live at wesufm.org and brought to you by the Community Health Center.