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

Margaret Flinter: And I am Margret Flinter.

Mark Masselli: Well Margaret, we are just a few weeks away from the next open enrollment to purchase health insurance under the Affordable Care Act, and while millions of Americans gained coverage during the first open enrollment there are still millions who are uninsured leading into round two.

Margaret Flinter: The first open enrollment exceeded expectations by the administration on how many Americans would sign up. Eight million people signed up for coverage, about five million gained coverage under Medicaid expansion, and millions of young adults were able to stay on their parents' plan up through age 26.

Mark Masselli: According to the new poll just released by Kaiser Family Foundation, many of the currently uninsured Americans have the least amount of knowledge about the upcoming enrollment.

Margaret Flinter: So that poll showed that this group was least informed about open enrollment details, and open enrollment begins on November 15th so it's still a big job to do getting the word out in those communities and among those individuals.

Mark Masselli: It maybe is sort of being lost in all of the noise, and certainly part of that noise is the issues around Ebola. The administration has stepped up safety protocols in the wake of the few Ebola cases in the United States. The CDC has issued stricter guidelines for protective gear use, and has clarified directions for how health facilities should deal with any cases that arrive on their doorstep.

Margaret Flinter: Some of the guidelines, Mark, are commonsense, but really commonsense always builds on preparedness. Having a clear chain of command and a well-rehearsed plan and system in place is critical. Make sure that all individuals in the system are trained. These are all important elements.

Mark Masselli: This is actually great advice not just for Ebola but for any highly contagious pathogens. There is a video on the CDC website that very clearly outlines these new guidelines. It would be a good idea for any provider or health care organization to watch this video and make sure they are complying.

Margaret Flinter: Well, let's turn now to our guest today. He is an individual who thinks that Big Data analytics and better use of health technology can be an

incredible tool for monitoring population health both individually, also potentially in the wake of any health crisis.

Mark Masselli: Dr. Marty Kohn is Chief Medical Scientist at Jointly Health, which is seeking to create a better platform for sharing personalized health data to assist clinicians in improving population health. He also oversaw the IBM team that built the supercomputer Watson.

Margaret Flinter: Lori Robertson looks into 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 www.chcradio.com.

Mark Masselli: And as always, if you have comments, please e-mail us at CHC Radio at www.chc1.com, or find us on Facebook, on Twitter because we love hearing from you.

Margaret Flinter: We will get to our interview with Dr. Marty Kohn 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 Health Care Headlines. The second open enrollment under the Affordable Care Act gets underway in a couple of weeks. November 15th is the start date, and there is a flurry of activity across the country as preparations look quite different depending upon where you are. In Maryland, they are launching a new system this year having partnered with the successful Access Health CT, Connecticut's exchange that ran so efficiently. So far it's testing out well. State of Oregon has cut its final ties between Cover Oregon and Oracle, the company hired to build Oregon's state health insurance exchange. The state distanced itself from Oracle, instead piggybacking onto the federal exchange.

Colorado was one of the states that created its own health exchange and it fared pretty well in the first go round. Roughly 300,000 signed up for coverage during the first open enrollment, still a large number of folks in that state staying out of the insurance market altogether. So the Colorado Health Foundation hired RAND Corporation to figure out why. They found consumers were confused about Medicaid and subsidies available through the exchange for private insurance.

The CDC has amped up its guidelines for handling Ebola in the clinical setting releasing a video outlining those new guidelines, calling for extra layers for protection, a buddy system to ensure protective gear is donned and disposed of

correctly, and better team coordination for handling active cases. Meanwhile, in Liberia and other parts of West Africa, cases continue to mount, and there was another downside to the deadly outbreak there; children aren't getting their necessary vaccines now. Liberia had an active program in place that had gotten that country to about 95% vaccination for all kids. Since the Ebola epidemic began, those numbers have dropped to 27%. Public health officials are bracing for what they believe will be the next epidemic, preventable childhood diseases like measles and scarlet fever which stand poised to kill many more children in the future.

I am Marianne O'Hare with these Health Care Headlines.

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Mark Masselli: We are speaking today with Dr. Marty Kohn, Chief Medical Scientist for Jointly Health, the collaboration of world-renowned clinicians, scientists and mathematicians dedicated to building a next generation remote monitoring platform for health care. Recently, Dr. Kohn was Chief Medical Scientist for Care Delivery Systems at IBM Research, leading IBM's quest to transfer health care including overseeing the development of Watson for health care. Dr. Kohn is co-author of numerous publications on health care transformation including IBM's white paper "Patient Centered Medical Home – What, Why and How." He is a Board Certified Emergency Physician. He is the Fellow at the American College of Emergency Physicians as well as the American College of Physician Executives. He earned his Bachelor's in Engineering at MIT, and his Medical Degree from Harvard. Dr. Kohn, welcome to Conversations on Health Care.

Dr. Martin Kohn: Thank you.

Mark Masselli: We are really excited about your work and its focus, really this intersection of improving medicine and developing data and technologies, platforms that can help practitioners facilitate personalized medicine. Now your focus has been on developing artificial intelligence tools that vastly improve provider experiences, including the development of Watson, the first language recognition supercomputer that earned so much popular attention by beating Jeopardy's all time best contestants. Could you describe your vision of how data analytics is improving health care experience and how it's poised to transform health care in the future?

Dr. Martin Kohn: We have recognized over the years certain limitations or problems in the way health care is managed and delivered in the United States and around the world. And one of the key components to supporting the transformation of health care to something more patient-centered, more efficient and safer is the ability to make better decisions, and in particular decisions that are personalized, aimed at the individual. Everybody is a little different. Not all

diabetics are the same. And so the more we can use all the information available to us to make it easier, to make better decisions that are more directed for that individual the more likely we are to make decisions that are helpful and effective for that patient, and then improve health care overall.

Margaret Flinter: Well Dr. Kohn, one of those efforts to transform care, particularly in the primary care space has been the Patient-Centered Medical Home concept, and your views on that were spelled out in a white paper that you co-produced a few years ago titled the Patient Centered Medical Home – What, Why and How. And you have said that data mining and remote monitoring are big part of that agenda. What are some of the key principles for PCMH model that include better adoption and use of technology?

Dr. Martin Kohn: Yes, we are making progress. We are recognizing for example that if we can monitor patients with chronic disease at their home and list their active participation in managing their health situation that things improve. It fits in with the Patient-Centered Medical Home in that one of their principles is what's sometimes called the Empowered Knowledgeable Patient, a patient who understands enough about his or her health situation and the options that they themselves become better managers of their health care. So this patient-focused idea of the patient being a better manager is a part of that, and the theme is that any information we can collect from whatever source that can be shared with the patient in a way that the patient can understand and use, improves that working relationship with their primary care provider and improves the overall outcome and costs go down.

Mark Masselli: Dr. Kohn, we operate a primary care practice focusing on serving special populations, and have been excited about the opportunity to participate in the Patient-Centered Medical Home Initiative. I think one of the big challenges that everyone has is how do you contain cost as primary care practitioners, and what are your thoughts on that?

Dr. Martin Kohn: If we look at some expressions of the future of health care, defined something as The Triple Aim, improving patient population health, improving the patient experience and controlling cost. So we want all of that now, and in order to do that, we need certain incentives in order to encourage people to participate in that model. One of the concomitants of more personalized is that you would be less likely to initiate an intervention, a costly intervention that would not be helpful for this particular patient. Now if we are going to get to that point where in effect participants in the health care system will be rewarded for quality, for improved outcomes rather than how much they can do, then we need to change the way health care is paid, where the participants in health care, the clinicians for example, are rewarded for improved quality and controlled cost simultaneously.

So if we move to a structure where the participants' health care are rewarded for achieving both, then we have the foundation where these other support tools like a clinician decision support and Big Data analytics to make it easier for the clinicians and the patient, then we are going to be able to move forward. If we stay with the fee-for-service model then these tools aren't going to be very helpful. So there is something called the Accountable Care Organization where these health care systems have agreed to provide care to a large group of patients for a specific amount of money that's negotiated, and their obligation in receiving that payment is to improve the health of that population and control cost. So in that environment, then these tools and the idea of the Patient-Centered Medical Home makes sense.

Margaret Flinter: Well you know, Dr. Kohn, as I look back over the past several years, one of the areas where we have seen a persistent and accelerating trend is certainly the movement of the country's health care providers away from the old paper records that we were raised on and towards a 21st Century model of electronic health records. But still we seem to lack a unified platform that brings all the data together and makes it actionable at the point of care. What needs to happen on the system development side to advance this use of personalized health data?

Dr. Martin Kohn: There are many, many electronic health records out there. Collecting data from different electronic health records is a bit of a challenge. So the goal is platform-agnostic, develop tools that can work with any of the electronic health records or other data storage systems that are out there. There are efforts to get a common standard, but as one person said, the problem in defining a standard the problem is too many standards, which makes it hard to integrate all that information. So, there are organizations such as Jointly Health which are designing their systems to be platform agnostic and to work with different health care information systems, but I don't think that in the near future we are going to achieve that goal of having a single uniform standard. So I think the effort is going to be creating analytics systems that can work across the different platforms.

Mark Masselli: We are speaking today with Dr. Marty Kohn, Chief Medical Scientist for Jointly Health, collaboration of world-renowned clinicians, scientists, and mathematicians dedicated to building a next generation remote monitoring platform for health care. Until recently, Dr. Kohn was Chief Medical Scientist for Care Delivery Systems at IBM Research including overseeing the development of Watson for health care. Well, Dr. Kohn, you are probably rightfully proud of the work that you and the whole team of people did in creating Watson, and I think it was generally introduced to the public at Jeopardy. Watson was sent back to medical school to learn about book knowledge. I guess I always wonder about the critical thinking element, does that exist in Watson or is Watson just a large repository? Tell us more about it.

Dr. Martin Kohn: Watson is a tool that's using natural language, the typical language of communication, and Watson analyzes written text-like information, be it journal articles or national guidelines, and rather than a passive repository [ph] where you just kind of look up information and search for information, it actually reads and understands huge volumes of literature like tens of millions of pages in a few seconds, collects information from written documents and offers suggestions for the physicians to consider or the clinicians to consider based on all its reading. And it uses a concept called cognitive computing where after a fashion the computer actually thinks and analyzes and tries to decide how relevant a particular fact or statement is, and it used that same approach in playing Jeopardy.

In health care it's a little different in that it doesn't come back with a single response, the way it was required to in Jeopardy, but comes back with suggestions prioritizing the order in which Watson think it's relevant to the decision to be made. So it doesn't make decisions for the clinicians; it gives them access to huge volumes of literature that we would all like to read, but there are hundreds of thousands of new articles published every year and you can't keep up with it. So Watson in effect is your library assistant, and then you use that information as you would with any other information to make a decision. But again, Watson focuses on that one component of information, and as I mentioned before, our goal is to use all the information.

So for example, where we are working now with Jointly Health is we integrate home monitoring data with other health care information data for patients with complex multiple chronic diseases to identify patterns in the information we see that would allow us to identify a patient who is on the verge of getting sick but not yet actually sick, and to get enough information to identify such patients and come up with a simple intervention that will reduce the likelihood they actually will get worse. It's estimated that something on the order of a third of hospital admissions for patients with chronic disease were actually avoidable. So Watson works in one area and other analytic tools work in other areas. My ultimate goal, my dream is that we will have a platform that can use all the different kinds of information, the text information that right now Watson handles, image information, laboratory information, home monitoring data, the more likely we will be able to make those personalized decisions that allow us to get into the preventive mode of health care rather than reactive mode.

Margaret Flinter: As I look back on your work over the course of your career it's very grounded in those years as an emergency room physician where of course you saw all the consequences of poorly managed chronic illness. Then you were at IBM and now you are at the startup. Maybe you could tell our listeners a little bit about who you have partnered with at Jointly Health, how this will be applicable across the broad spectrum of the industry, and I would be particularly interested are you working with any practices now in kind of a real life simulation

to see how does this become actionable at the level of the people who are caring for the patients at the level of the team.

Dr. Martin Kohn: Right now, roughly three quarters of what's spent on health care in the United States is for these patients with multiple chronic diseases. At some point we would like to be able to prevent people from developing these chronic diseases, and that idea is called primary prevention. We work with organizations that are in this accountable care like mode where they have agreed to take on the health management for a large group of patients with multiple chronic diseases because if that dual objective weren't there then there would not be necessarily great deal of interest in what we have to offer because what we are offering is reduced utilization of health care services and an improved health. So we are working with three or four organizations about to actually start monitoring large numbers of patients to demonstrate the value of this preventive mode. The idea of home monitoring of patients with chronic disease has been around for some time, but there is a lot to learn about the space so we are collaborating with some research organizations as well as organizations that are currently providing health care for large numbers of patients.

Mark Masselli: Dr. Kohn, you are participating in one of the more interesting conferences of the year run by Singularity University. This year's theme is Exponential Medicine, reinventing the future of health care and medicine, and in addition to the many notable keynote speakers including yourself, winners of the Nokia Innovation Challenge and MEDy Award will be announced. So could you share with our listeners a little more and describe Exponential Medicine and what we can expect from this year's gathering?

Dr. Martin Kohn: Well, the Exponential Medicine is really an extraordinary gathering of people working at the very edges of the future of health care, and it's across all different areas of technology. So, things that have been described in the past are mechanical support systems that allow paralyzed people to walk, creating artificial organs, real organs, creating sheets of tissue that act like normal liver. So it's a gathering of these people just to share ideas and what's been accomplished so far, and what the future might be, and within this meeting there are people that sponsor challenge prizes, some of them with quite substantial rewards if you can come up with systems that accomplish certain tasks. If you offer this prize and the prestige of having won the prize that many different small or larger organizations will attempt to take on these challenges and that out of it may be things that are very useful, very important for supporting and encouraging the transformation of health care. So you get to meet and speak with these people and share ideas, and it's rather extraordinary. It gives you faith that there is enough ingenuity and creativity and initiative to actually accomplish these things, and so I always kind of leave these meetings quite enthused and optimistic.

Margaret Flinter: We have been speaking today with Dr. Marty Kohn, Chief Medical Scientist for Jointly Health, a collaboration of world-renowned clinicians, scientists and mathematicians, dedicated to building a next generation remote monitoring platform for health care. You can learn more about his work by going to www.jointlyhealth.com, and find him on Twitter @MSKohn. Dr. Kohn, thank you so much for joining us on Conversations on Health Care today.

Dr. Martin Kohn: Well thank you. It's been a pleasure.

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Mark Masselli: At Conversations on Health Care, we want our audience to be truly in the know when it comes to the facts about health care 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 U.S. politics. Lori, what have you got for us this week?

Lori Robertson: How well did the Kentucky insurance marketplace do in terms of covering the previously uninsured? At a recent senate debate, Republican Senator Mitch McConnell and Democrat Alison Lundergan Grimes disagreed on that question. McConnell disputed that the state website called Connect had insured 521,000 people. Grimes meanwhile said those half a million people had insurance for the first time. More than half a million have signed up for coverage through the Connect website for both private insurance and Medicaid, but Grimes is wrong to say they were all previously uninsured. Through the end of the open enrollment period 75% of Kentuckians who had signed up for coverage indicated they had been uninsured prior to gaining insurance through Connect. That's according to the State Cabinet for Health and Family Services.

Between October 01, 2013 and April 15, 2014, the end of open enrollment, 413,410 had enrolled in health coverage, most of them on Medicaid and 82,795 on private insurance. At the debate, McConnell questioned how many of those gaining private insurance did so after their non-compliant policies were canceled. We don't know the answer to that. One Gallup poll though shows Kentucky has experienced the second largest drop in the percentage of uninsured of all states. The August poll shows the state's percentage of uninsured dropping from 20.4% to 11.9%. And that's my fact check 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 Annenberg Public Policy Center at the University of Pennsylvania. If you have a fact that you would like checked, email us at www.chcradio.com. We will have FactCheck.org's Lori Robertson check it out for you here on Conversations on Health Care.

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Mark Masselli: Each week, Conversations highlights a bright idea about how to make wellness a part of our communities and everyday lives. In the emergency room or the I.C.U., clinicians are confronted with a myriad of unpredictable medical crisis that sometimes can be challenging to diagnose. Most of these clinicians are now communicating with colleagues via their smartphones, often sending images of the patients' unique symptoms to one another for shared diagnosis. I.C.U. Physician Dr. Josh Landy was noticing a growing trend of image sharing via smartphones to crowdsource [ph] second opinions from friends and colleagues across the country. But he also was concerned about the potential violation of HIPAA regulations so he developed an app for that. He created Figure 1, a sort of Instagram for doctors in which images can be de-identified but shared across a dedicated social media platform that would allow input from clinicians within their network. Doctors are using the app to communicate not only with colleagues within their hospital settings, but around the world where someone might have superior expertise with a certain condition.

The app was recently used to share a chest image of one of the patients who presented with the Mid-Eastern virus MERS. Dr. Landy says the apps get about half a million image views a day with about 80 million total views so far. He sees the potential for this platform only growing as more young digital natives enter the medical workforce. Figure 1 is a free download through Apple App Stores and Google Play. A free downloadable app offering secure HIPAA compliant image sharing among clinicians around the world to reduce the time it takes to zero-in on a diagnose by tapping the collective expert instantly, now that is a bright idea.

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

Mark Masselli: And I am Mark Masselli, peace and health.

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