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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, the autumn leaves are brightening up and the days are getting shorter, time to start thinking about getting that flu shot of the year. I guess there's only one you get, right?

Margaret Flinter: There's only one for adults, that's a good news and we are gearing up for that flu shot delivery in our own organization and of course, all of those who work in healthcare are strongly encouraged to get their flu shots to really protect the patients, minimize any risk of transmission in the healthcare setting.

Mark Masselli: The CDC has launched a national campaign issuing a challenge for everyone to get their flu shot by the end of October. It takes a while for immunity to build up in the system and flu strains change from year to year.

Margaret Flinter: And the CDC's Dr. Tom Frieden recently illustrated the importance of getting that flu vaccine, having his own delivered right during a press conference, where he reminded people that flu is the most dangerous for people older than 65, for young children, pregnant women, and people with certain health conditions, and that encompasses just about everybody. So let's try and get everybody immunized.

Mark Masselli: Absolutely; flu sickens millions of Americans every year and he says that if vaccination rates could be boosted by just 5% across the board, that would prevent 800 thousand illnesses and nearly 10 thousand hospitalizations that year alone.

Margaret Flinter: Um, well, there is one slight change this year, Mark. The CDC has been tracking the effectiveness of the nasal spray vaccine. It's called FluMist and an expert panel reported that it failed to protect children last year for the third year in a row and should not be used this coming flu season. Though we just can't say it enough, the only effective hedge against contracting the flu is to make sure that you and your family are vaccinated.

Mark Masselli: It is so interesting now, Margaret, that we can track all kinds of important health data digitally and real time and that's something our guest has been thinking about for a long time. Dr. Charles Jaffe is the CEO of Health Level 7, the International organization dedicated to creating standards that support interoperability in health information technology. It underlies everything we are trying to achieve, electronic health records and the growth of health IT.

Margaret Flinter: Lori Robertson will also stop by. She is the Managing Editor of FactCheck.org, always on the hunt for misstatements spoken about health policy in the public domain.

Mark Masselli: But, no matter what the topic, you can hear all of our shows by going to chcradio.com and as always if you have comments, please email us at chcradio@chc1.com or find us on Facebook or Twitter; we'd love hearing from you.

Margaret Flinter: We will get to our interview with Dr. Charles Jaffe 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. After months of haggling, Congress found rare agreement on a funding measure approving 1.1 billion dollars to combat the Zika virus in this country and help those battling the epidemic around the world. Funding for Zika had been held up for months. Republican members of Congress had tried to embed measures in the funding that would have defunded Planned Parenthood. NIAID will get about 150 million dollars of the money. Dr. Fauci's team actively working on a vaccine for the virus and research will continue into Zika's pathology. Infection symptoms are generally mild, but have posed significant threats to women who become infected during the first trimester of pregnancy. Thousands of such exposed infants have been born with a variety of birth defects. Flu season is in and the CDC has urged Americans to get their flu vaccinations by the end of October to ensure the nation's population remains protected. Only about 50% of the nation's children will be vaccinated this year. There has been a growing anti-vaccination movement in recent years, Hence, the lower immunization rate for children and a study out on the Journal of Pediatrics has looked at a little link between choosing complimentary or alternative treatments and the likelihood a child will be properly vaccinated. Some complimentary medicine was shown to be quite common. According to the study, about 62% of kids take multivitamins or other supplements and those children urged by nontraditional practitioners were less likely to get the vaccine and more likely to get sick during flu outbreaks. However, behavior modification has been shown to have some efficacy, improving things like heart disease; whether it is losing weight, quitting smoking, or increasing exercise or all three. Now, the American Heart Association is asking Medicare to cover supervised exercises, a viable treatment to control heart disease citing numerous studies, the Heart Association urged CMS to support supervised exercise as a low-cost, noninvasive treatment option that proposed

exercise would consist of series of sessions lasting up to 60 minutes and involving use of either treadmill or track. Each session supervised by an exercise physiologist or physical therapist and folks suffering with type 1 diabetes can only improve their condition so much with diet and exercise. The FDA has approved the first automated insulin system for type 1 diabetes. Medtronic's MiniMed 670G hybrid closed loop system. It is made up of an insulin pump and continuous glucose monitor, both of which are already on the markets separately. The new part involves communication between the two devices. I am Marianne O'Hare with these healthcare headlines.

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Mark Masselli: We are speaking today with Dr. Charles Jaffe, Chief Executive Officer of HL7, a nonprofit global organization seeking to create standards that support global health data, interoperability. Dr. Jaffe was previously the Senior Global Strategist for the Digital Health Group at Intel Corporation and the Director of Medical Informatics at Astra Zeneca Pharmaceuticals. Dr. Jaffe has served in various leadership roles in the American Medical Informatics Association. He completed his medical training at Johns Hopkins and Duke Universities and was a postdoctoral fellow at the National Institute of Health. Dr. Jaffe, welcome to Conversations on Healthcare.

Dr. Charles Jaffe: Yeah, I am delighted to be here.

Mark Masselli: You know, Health Level 7, commonly known as HL7, founded 30 years ago to create this framework for sharing health data and you have, I know, thousands of volunteers around the world working with you on this project and it has emerged over these years as a leading organization for developing standards of health interoperability, but most health practitioners don't stop to think about the important work being done by your organization. Give us an overview of your organizations mission, as well as some of the shared goals at HL7.

Dr. Charles Jaffe: HL7 began as a small academic exercise and became embedded in regulation for countries around the world. There are some 50 countries that regularly use HL7 and it's safe to say that half of all healthcare data is exchanged on HL7 platforms. Part of the success of HL7 has been our ability to change as demands have changed. The key element for most of the interoperability exchange really transcends technology itself and focus on the policies and other requirements that are so arcane. The United States has been successful in some of its interoperability. During the height of the Civil war, U.S. Government mandated one gauge of railroad track, so that the proprietary standards while on a rail travel didn't interfere with seamless continuity of rail travel 20 years ago, there were four or five pieces of data that were needed for a physician to make a decision about a diagnosis or treatment. It is estimated that by the

end of the decade, there will be 400 pieces of data and other information including the explosion of the technology that will provide a great deal of future healthcare, whether it be genomics or proteomics and we have kept pace with that.

Margaret Flinter: Well, Dr. Jaffe, I was not actually not aware that HL7's mission relies on a coalition of thousands, literally thousands of volunteers, but I think our listeners would be fascinated to hear how you and your organization go about the work of creating standards that stay close and agree upon.

Dr. Charles Jaffe: Part of the process is to understand the need of the people that need use the technology. You can imagine the difficulties when one health system describes gender as M or F and another health system Male or Female. It's not as much of a challenge to English speakers, but to computers, it's a problem from the very go, so part of the critical effort we play is agreeing on vocabulary. In the world stage, there are multiple vocabularies; they need to be organized, where the end user finds the information valid. So at HL7, we have an initiative that we call partners' interoperability in which we bring clinicians, physicians, nurses, pharmacists, and try and understand what specifically that they require in their world of healthcare data. The reluctance of many physicians to adopt or utilize healthcare IT is based on the antipathy they have toward the system, which doesn't reflect their workflow, that we partner with the electronic health record vendors to be certain that they can support the kinds of workflow requirements that the clinicians themselves require and lastly, there are issues of disparate payment system. Today, the authorities from Medicare and CMS have begun to examine the higher standard to obtain detailed clinical data that actually helps define the intervention or diagnosis.

Mark Masselli: Well, you know the Holy Grail seems to be true interoperability and yet, it doesn't seem like that is within our reach. I can go to my ATM anywhere in the world. So what is that allowed the banking people to get all of their definitions right.

Dr. Charles Jaffe: In English language there are 450 thousand words. The National Library of Medicine has defined 2.7 million unique terms that we are talking about orders of magnitude of greater complexity. If you have an understanding of what a heart attack is, I am not sure two cardiologists would agree.

Mark Masselli: Well, then you paint a bleak picture for interoperability.

Dr. Charles Jaffe: No, in fact, we are moving to a clear understanding. When I was an intern 4930 was the code for both asthma and bronchitis. We understand now that Asthma isn't a disease. It is a physical finding. There are many diseases that we once coded as asthma and we realize they are a very different ailment.

Mark Masselli: Sure, and the ICD-11 has improved our communication right, our standardization.

Dr. Charles Jaffe: ICD-11, it is so complex that it will take significant computer resources to be able to map the anthology of that language. I met with two of the ICD leaders, who will be discussing with the WHO, but we partner with them as well, so that the HL7 platform can support this very complex nomenclature and although FHIR fast healthcare interoperability resources is relatively new, it has captured the attention around the world, it's quite clear that it departs from the traditional messaging of an HL7 and other standards have aligned and uses the same technology upon which the Internet relies. The FHIR Standard performs the same way as does the Internet, it is also supported with a lot of standard cases for patients, for security with the same standards that are adopted in commerce on the Internet for a much lower cost and orders of magnitude show their timeframes. You can develop applications based on FHIR.

Margaret Flinter: I want to go back to interoperability and why is it so hard to achieve interoperability between a primary practice on main street and the specialist across the town or the hospital, still we have trouble doing the essential function of care coordination for patients. What's the missing piece of infrastructure?

Dr. Charles Jaffe: I think there are three levels of hurdle, all of which begin with the word policy. There are very few technical challenges that inhibit data exchange. There are health systems in California that are large successful HMOs and yet one site cannot share data with another and that's related to the policies that have been defined by the physicians that lead those health practices. They have very different demands to implement their systems. HL7 doesn't write the software. We simply provide the infrastructure with which the software is written. There is far less antipathy amongst the big EHR vendors than you might suspect. At the Argonaut project, which began in 2014, fourteen healthcare organizations agreed to develop interoperability processes based upon FHIR and to this day, we have the same 14 at the table and they are all selling their products based on features that are not conflicting at all. In fact, the Argonaut project members have agreed to support base array. We see a level of collaborations that is belied by some in Government, in particular, in Congress, who say that information blocking begins with the EHR vendors. I hardly think so. Certainly, my experience with the Argonaut project is about collaboration and agreement across the board. I think the future of sharing data down the street will be in policy terms, not in technical terms. There's incentive now with our moving away from the perverse payment system to a new payment model, which is focused on quality and outcomes. There had been little or no incentive for health information exchanges much less for two healthcare systems in the same city to share data. Now, their reimbursement will be dependent upon it.

Mark Masselli: We are speaking today with Dr. Charles Jaffe, Chief Executive Officer of HL7, the global standards organization seeking to create a platform for interoperability in health information technology around the world. You know, Dr. Jaffe, I wanted to pick up on the word policy. You have been working with Center for Medicare and Medicaid and standardizing things like billing and quality and also working with FDA and the Veterans Administration, so these are really policy makers. Tell me how that's moving

along in terms of the agenda that you have of getting the policy makers to align their thinking? How are those larger policy making institutions working?

Dr. Charles Jaffe: Well, I think one of the big challenges that we face in the United States is, we don't have a uniform patient identification number. In Southern California, Kaiser, there are 10 thousand Maria Gonzalez; probabilistic patient matching is insufficient. In your credit report, there's an inherent 5% error rate. You go fighting with the credit company and you will possibly reconcile it and when there is long data in the medical record and decisions are made, predicated on that incorrect data, then there are serious outcomes and we support the efforts of the various healthcare organizations that are focusing on changing the policy that mandate it, like you have legislations, so we can improve quality by one order of magnitude by increasing the certainty that we are talking about the same patient. I can envision a day when the cost of complete DNA profile is available to everyone and then we can use our DNA signature as our patient ID, but until that happens, we have to rely on the kinds of technology that we have available and that will only be achieved when the policy changes. There are other policy issues, such as regulations around HIPAA. HIPAA specifically allows exchange of data for research. It is often used as a weapon to prevent the exchange of data. Secondly, U.S. Privacy Laws that are mandated through HIPAA, which were not about privacy, but became a stigma for sharing information. Until we get a uniform code around which we are permitted to share data, we won't be successful. We shouldn't have to have a team of lawyers to tell us whether we can send information from one New York Hospital to another and all of the other nonclinical requirements that are built into a regulation, though by someone who never took care of the patient.

Margaret Flinter: Well said.

Dr. Charles Jaffe: And lastly, there are issues around clinical quality. I am required to take 50 hours of continuing education a year. At my graduation, I was told that if I ran an entire journal every night, at the end of the year, I'd only be a year behind. I've heard that estimate is now revised and I would be 10 years behind. The key to overcoming that barrier is clinical decision support. If the predictions, the advancement in science are correct and we do have 400 data points to analyze at the end of the decade before we make the clinical decision, we'll never do it without a robust clinical decision support tool. Today, in the United States, there will tens of thousands of prescription for an antibiotic that are absolutely inappropriate that had no justification and yet they'll be gladly accepted by the patient who rely on the clinician's for their care. We need the clinical decision support to overcome the quality gaps that are inherent in the old care model. Newer tools are now available. The physician community soon will be subject to the same kinds of quality requirements that airplane pilots are to have, a set of redundancy, so we won't be prone to the many misadventures that we are inevitably inclined to do, because we are acting out of too few resources and too little guidance.

Margaret Flinter: We'd been speaking today with Dr. Charles Jaffe, CEO of HL7, a nonprofit global organization seeking to create standards that support global health data

interoperability. You could learn about more their work by going to HL7.org or follow them on Twitter@HL7news. Dr. Jaffe, thank you so much for the incredible work that you are doing and for joining us on Conversations on Healthcare today.

Dr. Charles Jaffe: My 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 nonpartisan, nonprofit 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: Republican Presidential candidate Donald Trump has been making false and misleading claims about the proposed premium for 2017 on the Affordable Care Act Exchanges. He says that your premium are through the roof citing high proposed rate increases for some exchange plans of 50% and 60%. Most insured Americans get their coverage through employer, where premiums have been rising at historically low rates for the past several years, but 7% of the U.S. population buys their own insurance on the individual market, such as through the exchanges and indeed some insurers have requested rate increases for 2017 exchange premium above 50%. Any increase above 10% has to be approved by Government regulators for the next open enrolment period, but the high increases could be outliers. The Kaiser Family Foundation analyzed preliminary rates in cities in 16 States in Washington DC and found the second lowest cost silver plan would increase by a weighted average of 9% from this year if the rates hold. That varies widely from a drop of 13% in Providence Rhode Island to a hike of 25% in Nashville. For 2016, the increase was only 2% for those areas and experts do believe exchange premiums will rise more this year than they have in the past. However, 80% of those buying exchange plans get Federal subsidies, which lower premium contributions to a percentage of their income. Trump further claims that the Obama administration wants to delay the November one, start date of open enrolment until after the election because of the premium increases, but the Trump campaign offered no proof of that to the Washington Post Fact Checker. The Department of Health and Human services said in a statement that the open enrolment dates are the same as this past year and “won’t be moved” 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 Healthcare.

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Margaret Flinter: Each week Conversations highlights a bright idea about how to make wellness a part of our communities and everyday lives. Sub-Saharan Africa leads the world in maternal and infant deaths each year. According to an annual report from Save the Children, an estimated 397 thousand babies died at birth in that region in 2013 and some 550 mothers died per day as well. Most of the causes have to do with lack of access to medical care in these low resource regions and often the local midwives lack formal medical training to prepare them to conduct interventions in the event of a life-threatening like a hemorrhage or an infection.

Anna Frellsen: We know that 90% of all the deaths that we see today could be prevented if the mother had, you know, access to this really basic skill care during the childbirth.

Margaret Flinter: Anna Frellsen is CEO of the Maternity Foundation. A Copenhagen based nonprofit, dedicated to eliminating maternal and infant death in the world. Their organization has created intervention for midwives living in low resource areas. It's called the Safe Delivery App and it provides comprehensive training for midwives that teach them and guide them on what to do in the event of a birthing crisis.

Anna Frellsen: This is really a matter of building the skills of the health workers, who are already out there and empower them to be able to better handle the emergencies that, you know, may occur during childbirth, such as, you know, the woman starts bleeding or the newborn is not breathing and so forth. It is a matter of finding a way that we can reach to help workers and build their skills.

Margaret Flinter: Frellsen says the real promise of the Safe Delivery Application lies in its ability to provide ongoing obstetric and neonatal training, so that local midwives can gain important clinical knowledge. The Safe Delivery App has been designed to be culturally relevant and easily understood and it has received the United Nations approval for wider deployment. A low-cost culturally sensitive mobile app that offers immediate guidance and assistance to midwives and health workers in low-resource areas empowering them with ongoing support and knowledge that can improve birth outcomes, 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, streaming live at www.wesufm.org and brought to you by the Community Health Center.

[END 25:00]