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

Margaret Flinter: And I am Margaret Flinter.

Mark Masselli: Well, Margaret, we are into February already, a month when we acknowledge heart health by wearing the color red. It's an excellent opportunity to remind folks to know their numbers, their cholesterol levels, blood pressure to reduce the risk of heart attacks or stroke, and seek intervention when the risk is deemed high enough.

Margaret Flinter: Well, Mark, that's so important because we know how to improve patients' odds with interventions, and in fact, we have been improving them every year. But still some 610,000 Americans have their first stroke every year, and then other 525,000 Americans have their first heart attack every year, and we believe we can do better.

Mark Masselli: And the American Heart Association, the American College of Cardiologists came out with a new set of risk assessment guidelines for heart attack and stroke, and they increased the potential risk markers that would suggest early intervention with blood pressure or cholesterol controlling medication.

Margaret Flinter: And of course, behavior modification, changing our behavior, such an important companion to any of these protocols. We know, of course, that quitting smoking, something that we are passionately committed to, moderately increasing exercise and reducing overall bodyweight has an enormous impact on patient risks. So these are the behaviors that we need to encourage and support and research and test innovations to advance.

Mark Masselli: Hispanics and African-Americans tend to be at higher risk for cardiovascular events.

Margaret Flinter: As well as higher risk for diabetes which, of course, elevates heart attack risks. It's all related, Mark, but it's most important that we arm our patients, all consumers with good information on how they can best protect their health.

Mark Masselli: The interesting thing about that, Margaret, is there is so much innovation in the tech sector now to create variable devices and mobile apps for all kinds of health monitoring, and the tax sector is really helping put the power of control in the hands of patients. And over time, I think that's going to have an impact on patient engagement and patient health as well.

Margaret Flinter: And our guest today has had his eye on the technology sector of health care for a long time. Dr. David Brailer is considered the father of health information technology in this country. He was the nation's first national

coordinator for health IT under President George W. Bush and has since founded Health Evolution Partners that supports the growth of promising companies in the health IT space.

Mark Masselli: It will be interesting to hear his assessment on the state of health IT adoption in this country and how close we might be to meeting affiliates, Margaret.

Margaret Flinter: And Lori Robertson, managing editor of FactCheck.org will stop by. She is always looking into the statements about health policy that have been spoken in the public domain.

Mark Masselli: But no matter what the topic, you can hear all of our shows by going to CHC Radio. And as always, if you have comments, please email us at Chcradio.com or find us on Facebook or Twitter. We would love hearing from you.

Margaret Flinter: Now we will get to our interview with Dr. David Brailer in just a moment.

Mark Masselli: But first, here is our producer Marianne O'Hare with this week's Headlines News.

Marianne O'Hare: I am Marianne O'Hare with these health care headlines. The State of Health Care and the State of the Union, the two collided last week with President Obama's speech to the nation walking a fine line between acknowledging the myriad flaws with the rollout of the health insurance exchanges. The president stood by this singular achievement of passage of the health care law as a good thing for this country. On the same day, he gave his State of the Union address, the Centers for Disease Control came out with an assessment of the State of Health Care in this nation. The reports show that one in four American families is struggling to pay their health care bills. The uninsured and those struggling with high deductibles and out-of-pocket costs is having a serious impact on family finances.

Meanwhile hardliners in Virginia are holding on to their "just say no" policy. Governor Terry McAuliffe's top agenda was to expand Medicaid for hundreds of thousands of uninsured Virginians. The Virginia House has the votes to block the expansion and voted no. And the FDA has confirmed what has been suggested in numerous studies about antibiotics use in animal stocks. Consuming these animals does, in fact, lead to antibiotic resistant strains of bacteria in humans. The FDA studied the use of certain antibiotics in animal feed and found they did indeed lead to an increase in antibiotic resistant bacteria and infections. At least one to two million Americans fall sick every year with such infections, and 23,000 Americans die each year from exposure to such strains. I am Marianne O'Hare with these health care headlines.

Mark Masselli: We are speaking today with Dr. David Brailer, MD and PhD, managing partner and CEO of Health Evolution Partners which seeks to develop and support companies innovating in the health information technology space. Dr. Brailer is known as the father of health information technology movement in the United States, served as the first national coordinator for health information technology at the Department of Health and Human Services under President George W. Bush. A physician, educator and an entrepreneur, Dr. Brailer earned his MD from West Virginia University and his PhD in health economics from the Wharton School at University of Pennsylvania. Dr. Brailer founded **Care of Science**, the nation's first health information exchange. Dr. Brailer, welcome to Conversations on Health Care.

Dr. David Brailer: It's great to be with you today.

Mark Masselli: We are glad you are here with us. And you jokingly referred to yourself in a recent speech as the Grandfather of Health IT. We know you are not that old, but technology is moving rapidly, and you say that we are in this era of extreme chaos in the health care industry, not just in United States with the deployment of the Affordable Care Act but also globally. This high level of chaos is a harbinger of new innovations in your estimation. And the health IT development and adoption is one of the biggest market forces coming to bear on the industry. So tell our listeners how is this chaos and disruption spurring significant innovation in the health care industry.

Dr. David Brailer: Yeah, Mark, and I think maybe a little history lesson. If you look back at some of the great innovations in health care, whether it is renal dialysis or the iron lungs that turned into ventilators or some of the original breakthrough medications, let alone health information technology, they came up through periods when major changes were underway. Some of the major drugs that we now consider routine came up through wars. Some of the times when we developed lifesaving technologies were during epidemics. What you realize is that it's during periods of chaos where the normal same people are distracted running things that the crazy innovators, the entrepreneurs actually can start running, and they start doing things.

And we are in a period like that probably that has never been seen before, and that's one of the reasons you see so many new companies and so many new efforts (7:02 inaudible) health care. And we know we need the solution, but it's because of the dislocation that's underway that these solutions that normally get stepped on are actually getting a lot of time and attention. It's a very promising area of innovation right now.

Margaret Flinter: Well, Dr. Brailer, I really appreciate that little bit of mini history of us, and I was just doing a mental calculation. It was probably 2004 when we had you hear in Connecticut speaking – it was probably the first organized

meeting on health information technology. So without a policy initiative that you initiated with the Office of the National Coordinator, I suspect that health IT adoption would be much further behind than it is now. So I am going to ask you to maybe just – before we talk more about the future, how far had we come since you were the first national coordinator?

Dr. David Brailer: Well, we have come a long way, and it's interesting when people put so much emphasis, Margaret, on the policy effort that I had the privilege to be involved with. And I say that because my view when I was in Washington was there are policy efforts that are created across all kinds of change areas, and so few of them really have a kind of impact that health IT did. And why was that? Well, it's because we had 30 years of developing the core technologies, 30 years of proving the validity. We had a president that was ready; we had a health care system that was desperate for solutions. And those magic moments don't come along very often, and it's one of the reasons that health IT has just skyrocketed, and we have come a tremendous way.

When I started in 2004, less than 5% of doctors' offices had electronic records in place. Today, the number is about 55% to 60%, and I think it's growing at a very steady pace, and it's become something where you simply can't over the long run be in medical practice without electronic records. Hospitals nearly universally have them in place. And we have seen consumers go from being completely agnostic, not really understanding why I have helped for their doctor to use a computer to keep track of their drugs or their medications or their treatments to now having a very high resonance where people seven out of 10 say they choose a doctor that are choosing electronic records.

And I think what you have seen is an irreversible gear shift change in the industry where now as we start dialoging, we are going to be talking about what gets built upon this. It's been a big change, and it's not just at the federal level, and it's not just in the United States; it's a global change. My peers from other countries were all seeing similar changes. In fact, most people have forgotten that the U.S. followed a massive effort in the United Kingdom designed to bring them into the information age. And it's happening in Asian countries, and it's happening at the state local level. So this the digital era of health care, and it's sweeping the world, and the United States is really a great forerunner of this.

Mark Masselli: Dr. Brailer, you say it's imperative with top down and bottom up transformation happening in the industry that health care organizations develop innovation receptor sites. And you say one of the growing disciplines in health care is the chief innovation officer. Tell us about some of the groundbreaking work that's going on. What are you excited about and are there results that might be of interest to our listeners?

Dr. David Brailer: Major health care systems, pharmaceutical companies, health plans and all the other large companies that make up our large health care

system have become very attuned to innovation. They are looking for it to help them understand, ways they can solve problems and the fact that many, many, hundreds of organizations have designated investment or innovation offices and innovation officers or some kind of a window that's looking out trying to figure this out how important, how large scale and how sweeping this trend is.

I would say, though, those are not innovators. The innovators are largely doctors that are out trying to find a new way to treat, and therefore, they are programming some code. They help them figure out how to treat a patient better. And by the way, I think this area of decision support that sits upon the electronic record that helps clinicians figure out if the patient should get treatment x or y, it's a very promising area. Decision support is a natural growth upon this. It could come from a startup. If you look from where I sit in the Bay Area, I could probably see from my office 150 or 200 health care IT startups early stage companies, many of which are consumer facing, using apps, trying to help people manage their health care, engage in more wellness activities, employer sponsored or not.

The innovation is coming from people that are not in the health care system generally today; they are outside of it. And so the fact that the collective respect of the industry is paying so much attention to them is something that I think of as being just a very, very promising turn for an industry that to date has been very inward focused and not very focused on what's happenings that's going to change the industry.

Margaret Flinter: Well, Dr. Brailer, you have an annual leadership forum on topics that are impacting these big changes in health care. In a recent topic centered on the bottom of reinvention of primary care, what is this bottom up reinvention that's underway, maybe some examples of how you think primary care will actually be improved by it?

Dr. David Brailer: So primary care has been an area that we all know, I mean your living through this has been neglected, and yet, it's also seen as having a tremendous value. And so what are the ways that we can change primary care to make it more effective, and I think there is really two elements of this that anchor all the many innovations that are underway. One of them is that the patient is a co-producer of the primary care result. The idea that the patient is a passive vessel upon which the doctor or other clinician performs magic in treatment, and the patient is cured through no act of their own I think is yesterday's model.

The model today of primary care where we are seeing success, where we are seeing very high engagement rates, participation in preventive activities that are generating significant reductions and downstream utilization, higher compliance with medications, higher engagement and basic health activities, these are all done in some way or another by engaging the patient in person, over the phone

with their own information and again many ways. Some are very automated, very IT driven; some are very touchy-feely, very in person. But I think that's a key fulcrum in the primary care organizations and clinicians.

The second underpinning of this is that the home is a key side of care, that the home is where primary care visits can happen, where post acute management can occur to keep patients from sliding back into the hospitalization. It's a site where we have seen a number of so-called ambulatory ICUs so we can have visiting nurses come by once, twice, three times a day; we can have patients in hospital beds; we can have medications dispensed; we can have patients televideo monitored, telemetry monitored. It's really becoming a really critical side of care, and as we know, an increasing number of people want to die at home as they face **turmoil**.

And so I think this is a very promising area, and you are seeing many innovations around how to engage people, how to think about care delivery, how to finance care that's built off of this, and the promises are enormous because we know that the two key drivers of health care waste and expense are unnecessary hospitalizations and unnecessary specialists' visits, and primary care is the fulcrum for both of those.

Mark Masselli: We are speaking today with Dr. David Brailer, managing partner and CEO of Health Evolution partners which seeks to develop and support companies innovating in the health information technology space. Dr. Brailer served as the first national coordinator for health information technology at the Department of Health and Human Services under President George W. Bush. Dr. Brailer, your organization is focused on private equity engagements on a global scale, and you say we are in this area of turn with lots of uncertainty, and you predict that we are going to see ways of innovators transforming health care IT every few years.

I was interested in your focus about where these investments are. We are a different type of generation than we were 20 years ago with the advent of technology. So it will be interesting to see what you have been focusing on in investments both in this country and globally.

Dr. David Brailer: Sure. It's a tremendous amount of change. I am going to actually start by telling you what we are not focused on because to some degree, it's everything else that we are. One of the interesting results of the meaningful use incentives that came from the stimulus build-up, the massive subsidization of electronic record purchases by doctors, hospitals, is that it created a bubble in the electronic record space. Public companies surged up to tremendously high PEs; their stock valuation is very high compared to other profits. And a very large number in excess of 500 electronic record companies were formed, particularly in the outpatient ambulatory space.

And we have seen tremendous and unjustifiable valuations for companies because they are touching this money, and I think investors have not figured out that that money is over in just a couple of years, and after that, the bubble will pop. And so we have not paid attention to that space, although I think some people have done well. Where we focused our efforts are on the following question, imagine we have ubiquitous point of care electronic records. We are almost there, what are you going to do with that?

And that starts (16:52 inaudible) what you do with all that information, it's the next layer that's built on the pilings that are put down to electronic records. How do you use that to change decision making by a clinician? I mentioned decision support. It's a very promising area, and we are seeing this frankly happening a lot more in Europe than we are seeing in the United States today. But Europe is a few years ahead in having electronic records. How are we helping this using information to monitor and to assess? You maybe call it big data, but to look for disease patterns, to look for treatment anomalies, to look for subpopulations in which things are not working well, and this requires extensive, standardized data, and we are only just getting it today. And I think that area will become explosively valuable.

Even a third area which might not seem directly relevant to people is how do we use the information to begin driving robotics, how do we really take and put in place where it's in the home or hospital settings, in a surgical setting, in a training setting, tools and services that start doing things around and for clinicians, whether it's to help them have telepresence, to help them do a surgery, to help them train for a procedure. This is an area that's just in its infancy, and as we have watched this, it's going to have enormous promise. So those are just three areas of many, but they all have in common what we think of as the second generation of health information technology which is don't just collect information, do something significant and valuable with it.

Margaret Flinter: Well, Dr. Brailer, I would be remiss if I didn't take the chance to ask you what you are seeing in this next generation of health care professional students that are coming up. Somebody said to us recently that some day, we will look back and say, "Wasn't it shame how illiterate the population was, only 2% of people could write code." For everybody, there just is enormous shift in the way they are going to study, practice, learn. So what are you saying to today's students of the health professions about the set of skills they need to master to really harness this technology, to harness patient engagement and to really move forward into the next era of health care?

Dr. David Brailer: When you talk to medical students nursing students or postgraduate students of various types who use information tools in every aspect of their lives, who are trained with classroom educational technologies, with simulation tools, what I say to them is a single simple message, "Don't give up because you are right. The day you graduate, you are going to go into a health

care system that is dominated by 50 some things or 60 some things who are way behind you in technology, who do not see its potential, who are not making the investments that they should be because of so many constraints in these organizations. And the last thing you want to do is to give up the principle of how you believe this should be because you are right. This should be way more friction free; it should be way more free flowing, way more interconnected, way more empowering of the people that are trying to do things and way less top down and bureaucratic and controlling."

If you look at career choice of doctors leaving residency where they want to practice, having access to modern information technology is one of the key decision factors that doctors are putting laid on today, and it's out of nowhere over the past two years. So they are really starting to vote with their feet. If you have modern information technology, and you can do it on a mobile phone, or it's ubiquitously available, it really helps them solve problems, and it's adaptive, you are going to recruit the bumper crop of talented doctors for the future. So I think the labor market is starting to follow technology, and people are voting with their feet. But I tell them, "Don't give up. You are right."

Mark Masselli: That's very optimistic, and we have been speaking with Dr. David Brailer, managing partner and CEO of Health Evolution Partners, and the first national coordinator for health information technology at the Department of Health and Human Services. You can learn more about Dr. Brailer's work by going to Healthevolutionpartners.com. Dr. Brailer, thank you so much for spending time with us today on Conversations on Health Care.

Dr. David Brailer: Mark and Margaret, it's great to be with you.

Mark Masselli: At Conversations on Health Care, 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 U.S. politics. Lori, what have you got for us this week?

Lori Robertson: Well, one lawmaker claimed that the Affordable Care Act was responsible for a recent loss of health care jobs, but the loss was miniscule. An economist we spoke with said the drop had nothing to do with the health care law. Representative Cathy McMorris Rodgers, chair of the House of Republican Conference, said that, "For the first time in over a decade, the health care sector lost jobs." And she continued, "It's another impact of the president's health care law on health care in this country and on people's jobs." She is right about the loss of jobs. The December report from the Bureau of Labor Statistics estimated a reduction of 6000 jobs for health care employment that month, and that's the first time the health care sector has seen a monthly drop in more than a decade.

But there were more than 14 million health care jobs in December. Economists also (22:12 inaudible) connection with the health care law. One Princeton University professor told us reading anything into a one month drop like this is "silly." The law is actually expected to increase health care employment as it increases not only the number of Americans with insurance but national health care spending. One report often cited by republican legislators estimated the law would add 890,000 health care jobs. 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 Chcradio.com, we will have FactCheck.org's Lori Robertson check it out for you here on Conversations on Health Care.

Each week, Conversations highlights a bright idea about how to make wellness a part of our communities and everyday lives. The flu doesn't just exact its toll on public health; it impacts a meaningful punch on the economy every year as well. Comprehensive vaccination programs have had an impact on curtailing flu outbreaks, but there is still a lot of room for improvement. In 2011, an estimated 100 million workdays and close to $7 billion in lost wages were attributed to the flu, largely because many employees without paid sick leave are more inclined to work while sick. In a first of its kind study, researchers at the University of Pittsburgh School of Public Health decided to analyze the impact on flu outbreaks in the workplace and to ask what would the difference be if there were universal access to paid sick leave.

Lead researcher Dr. Supriya Kumar says their study showed a pretty dramatic link between access to paid sick leave and a reduction in flu outbreak in the workplace. They also created another option, what if there were new sick leave category focusing just on flu days. Their model showed that if those workers, specifically diagnosed with flu, were guaranteed just one payday off to recuperate, there would be a 25% reduction in the spread of flu. And when workers were guaranteed two paydays off, the numbers went up to a 40% reduction in co-infection. A universal paid leave program for all workers that has the potential to greatly reduce flu co-infection in the workplace, positively impacting both public health while saving billions of dollars in the overall economy, now that's a bright idea.

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 Wesufm.org and brought to you by the Community Health Center.