(Music)

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

Margaret Flinter: And I am Margaret Flinter.

Mark Masselli: Well Margaret, I am seeing a lot of pink ribbons these days.

Margaret Flinter: That makes sense Mark. It is breast cancer awareness month.

Mark Masselli: And it's still the leading cause of cancer deaths among women.

Margaret Flinter: The latest statistics from the Centers for Disease Control show more than 120,000 women diagnosed in 2008.

Mark Masselli: And sadly, more than 40,000 women died that year from breast cancer as well. So much more work needs to be done.

Margaret Flinter: And that work is going on and at levels we have never seen before. Genomics is poised to have a powerful impact; we are finding ways to select drugs that are targeted to a specific type of cancer a woman is diagnosed with. So we are hopeful for more individualized approaches, more effective approaches to battling breast cancer as time goes on.

Mark Masselli: And yet, the fundamental of prevention still holds true here. Early detection, getting a mammogram or checking in with your primary care provider is still the best bet.

Margaret Flinter: Well those are good health behaviors and the ones we advocate. And speaking of behavior, behavioral health is also in the spotlight this month Mark. October is National Depression Awareness month.

Mark Masselli: And one in 10 Americans have been diagnosed with some form of depression or other mental illness, and experts feel the numbers of those afflicted are much higher.

Margaret Flinter: That's why depression screening is so important, screening but also screening that leads to treatment. We know that that underlies other health issues and we know from experience that people who are depressed do more poorly at managing their chronic illness, have worse health outcomes and it's actually one of the leading causes of death worldwide, number 10 I think.

Mark Masselli: Our guest today can shed some light on how these and other illnesses can be battled in the future using genomics and mobile technology.

Margaret Flinter: Dr. Joseph Smith is Chief Medical and Science Officer for West Health, a research and policy organization that seeks to lower health care costs by accelerating the development of wireless health solutions.

Mark Masselli: Dr. Smith has got some great information on the advances being made in **m-health** and genomics as well.

Margaret Flinter: And FactCheck.org's Lori Robertson takes a look at a claim from the campaign trail that the Affordable Care Act created a board that will tell people what kind of treatments they can have.

Mark Masselli: No matter what the topic, you can hear all of our shows by Googling CHC Radio.

Margaret Flinter: And as always, if you have comments, email us at www.chcradio.com, or find us on Facebook or Twitter. We love to hear from you.

Mark Masselli: We will get to Dr. Joseph Smith of the West Health Institute in just a moment but first, here is our producer Marianne O'Hare with this week's Headline News.

(Music)

Marianne O'Hare: I am Marianne O'Hare with this Headline News. The election is just weeks away and Governor Romney has closed a near 8 point deficit in the campaign since the first Presidential debate with President Barack Obama. The two candidates are in a dead heat according to a number of polls, with Governor Romney edging slightly ahead on health care. And health care figure prominently as expected though, the Romney campaign has had to do some backpedaling since the debate. During the debate, Romney claimed he would allow people with pre-existing conditions to buy health care coverage. That is already in place but only if a person hasn't gone more than 63 days without health insurance. If that's the case, under Romney's plan, they could be denied coverage. Romney's own campaign had to backpedal on that and several other claims made during the debate. Governor Romney has said he would repeal the Affordable Care Act if elected. The vice presidential debate is this week. Meanwhile, recent independent nonpartisan analysis of the Romney-Ryan health plan shows 36 million Americans would lose health care coverage under their plan.

The numbers of people across the country infected with a rare form of meningitis has topped the 100 mark with 8 deaths being blamed so far on a steroid injection used for back pain. The Massachusetts pharmaceutical company responsible for the tainted medicines has pulled all their products off the market until the investigation into the outbreak is complete. The Centers for Disease Control has

information on their website for folks who are concerned they may have been exposed.

The Nobel Prize for medicine has been awarded to two scientists who have unlocked the secret to turning any cell into a stem cell first discovered by Dr. John Gurdon of England in 1962 and validated 40 years later by work done by Dr. Shinya Yamanaka of Japan show that any human cell could be reprogrammed to become a stem cell to then grow into another kind of cell. It unlocks limitless potential for research and personalized treatments in medicine. I am Marianne O'Hare with this Headline News.

(Music)

Mark Masselli: We are speaking today with Dr. Joseph Smith, Chief Medical and Science Officer at West Health, which includes the West Health Institute and the West Health Policy Center, nonprofit entities founded philanthropist Gary and Mary West dedicated to advancing technology in health care that will lead to lower cost and better health outcomes. Dr. Smith is the former Vice President of Emerging Technologies for Johnson & Johnson and also served as chief medical officer for Boston Scientific. He was named by HealthLeaders magazine as one of the 20 people who make health care better. Dr. Smith, welcome to Conversations on Health Care.

Dr. Joseph Smith: It's a pleasure. Thank you so much for having me.

Mark Masselli: You know we always seem to be at some critical juncture in health care in America. And certainly over the recent years, the cost for health care has skyrocketed; it accounts for about 18% of our gross domestic product. And people say it's been growing at an unstable rate and yet, we have the passage of the Affordable Care Act, created a lot of new opportunities not only for including more Americans in the health care system but also for generating discussions about the need to contain cost. You have recently quoted Rahm Emanuel saying, "Never let a good crisis go to waste". But many great minds have been trying to sort out this crisis of skyrocketing cost in health care. Share with us and our listeners your goal at West Health of lowering health care cost but also improving patient outcomes.

Dr. Joseph Smith: You know it's funny, you talk about how we always seem to be at a critical juncture in health care. I am not sure that we have always faced the challenges that we currently face. I was reading a report a little while ago that says that, if things continue as they are, by 2030, the median family income will equal the median family expense on health care including insurance and out-of-pocket expenses. And I don't think we are actually going to head there; I think we know that we need to be in a different spot. And I think all of the national focus on health care reform I think is timely, it's essential, it's probably overdue. I would point out that much of the Accountable Care Act is reform about how

health care is paid for and not so much about how health care is delivered. And that's really where we think there needs to be a much sharper focus and I think there is an opportunity to decentralize, perhaps democratize, and in the process maybe even demystify some of health care delivery.

We see four different areas for impact that draw a lot of attention for us. The first is in efforts to create more of an efficient medical marketplace. You would not think of going into a restaurant and having the maitre d' decide what you should have for dinner and then send you the bill three months later. I mean yet that's the way health care gets apportioned, delivered and paid for. And so we need to take advantage of all of the natural skills we have in assessing value in the things we need and we purchase and apply those to health care.

Margaret Flinter: So Dr. Smith, you are trained as and practiced as a cardiologist but you also have an extensive medical engineering background. You said that we are at this fertile intersection between engineering and medicine. Tell us more about that. What are the collaborations at this intersection that you are tracking out at West Health?

Dr. Joseph Smith: I love this space. I have spent my whole career at this what I think is a wonderful intersection between engineers who are inherently problem-solvers and health care which is really not short at all of problems. And so I think there is a tremendous opportunity to make a difference. It's some humor that I have read in a recent Congressional Budget Office report that medical technology is widely viewed as being in some way responsible for escalation in costs. Technology itself when appropriately applied has dramatic opportunity to lower health care cost. We are working under the rubric at the moment that chronic diseases ought to be managed episodically at encounters in doctors' offices or emergency rooms or hospitals as opposed to when a patient needs to be seen. And I think we can completely change that paradigm of chronic disease management.

I mean when you have complex equipment, you don't wait for it to start making a funny noise in order to service it. We have dashboards on our cars to tell us how things are going so that we can make those interval changes to keep it functioning well. We have all of that for technology that we care about and yet, we don't do that for chronic disease management where we really could. And so the notion of using little bits of technology to look in on patients who aren't in front of a doctor, who are in their normal activities of daily living or who are sleeping and look in using relatively simple bits of technology to get a dashboard on how is that person doing. So that patient with heart failure, if they have gained a couple pounds and if when they walk up a flight of steps it's a little bit slower for them, all of that information is readily accessible and if we just bothered to look at it and use smart systems that we have in place for other complex machinery, we would be able to identify those people who are beginning to fail as opposed to waiting for them to get so sick.

Mark Masselli: Well let's pull the thread a little on that and talk about mobile technology. And with billions of people possessing cell phones in the world, you say we are just not utilizing this platform for delivering better health care in a meaningful way yet; we can gather and deliver health data. You say that we need to move our health care system from moving the patients to moving the data to serve the patients when and where they needed. So how do we achieve the ends when we have a relatively siloed health care system at present?

Dr. Joseph Smith: So siloed is perhaps an understatement and I do think that speaks immediately to the need here. I think we have an inherent problem which I think we have lots of systems that each manage data different ways and store and transmit and query and answer differently. And so this notion that if you are a Mac user, as I am, the notion of every time you get another piece of Mac hardware, the other hardware works with it just fine. It knows exactly where it is and what it can do and was all easy, was all functionally interoperable immediately. And we have none of that benefit in health care. We have every different vendor making information flow using their own proprietary formats and processes in part because we have this desire to make sure that health care information is both secure and timely. But I think one of the downsides is that we have created every different company that makes one of these gadgets has its own way of moving information around and that frustrates the notion of the value proposition of the plurality of these solutions so that we no longer depend on each device alone to manage all of the concerns around a patient but we can use a smarter net of devices that can all talk to each other to get a better more holistic view of how an individual patient is doing or populations of patients are doing. We have it in terms of an Internet backbone. You don't need to buy a specific computer or a specific cell phone to get on the Internet; we have an Internet protocol that allows every device you can imagine gets on and accesses the Internet and shares information. We do not have that for wireless medical devices or electronic medical records. It's all been siloed up and diced up with lots of little propriety walled gardens that are really getting in our way at this point.

Margaret Flinter: One of the things Dr. Smith in clinical facilities specifically seems to be this whole issue as you pointed out there about the wireless revolution that has come, and clinical facilities are challenged to provide a system that's both secure and it's high functioning. And you have noted that there is these three elements impacting broadband use in the clinical set and you have got the patient monitoring system obviously critical. Two, you have the technology that handles the business and the data side, and three, you have got that WiFi user walking in the door everyday. So, how do you envision these three tiers being effectively managed either in the health care facilities of today or the clinical facilities that we are trying to build for the future?

Dr. Joseph Smith: Well I think the good news is people are readily admitting that there is an issue and a concern here. You would like not at all to have the young grandson of a patient downloading a video in the waiting room and have him use up the critical bandwidth that's necessary for monitoring his granddad in a intensive care unit, right. So, on one hand, you would say well I am sure that doesn't happen but if in fact we are all using a shared resource without some notion of prioritization, that can of course occur. You can have the least vital but perhaps most consumptive processes taking over all the space. And so, one of the fellows working with us here used to be president in a wireless, a private company before but now is working with us in a nonprofit setting. He's architected what we call Medical Grade Wireless Utility and it's a solution for that issue that manages the appropriate resource distribution in hospitals. And it's something that we have architected and made really available for hospitals. And Ed's now worked with, he tells me, I think almost a 100 hospitals, and trying to get them up to speed. So there is this notion that wireless communication can be as dependable and reliable as power and oxygen and lighting in a hospital.

Mark Masselli: We are speaking today with Dr. Joseph Smith, Chief Medical and Science Officer at West Health, which includes the West Health Institute in San Diego and the West Heath Policy Center in DC, nonprofit entities dedicated to advancing technology in health care that will lead to lower cost and better health outcomes. Dr. Smith is a fellow at the American College of Cardiology as well as the American Institute for Medical and Biological Engineering. Dr. Smith, you mentioned just a few minutes ago liberating health data and I was thinking about our good friend Todd Park who is now the Chief Technology Officer. And tell us a little more about what the bigger picture is of how you are going to liberate data and how that's going to help us build the sufficient, effective and elegant health care system with just in time delivery of health information when you need it.

Dr. Joseph Smith: Well it's a tall order, and I think almost anyone's enthusiasm would pale next to Todd Park's.

Mark Masselli: We agree.

Dr. Joseph Smith: I have watched him talk and he gets up in a lather and I think it's because there is this remarkable opportunity when you look at what the good Mr. Park has open to him in terms of data that Medicare and Medicaid has collected over processes and procedures they have paid for and then outcomes they can track. I think there is an opportunity to ask all sorts of questions particularly when you introduce new technologies and you can determine how they are used but then whether or not the outcome that you imagine in a narrow randomized controlled trial is in fact represented in a larger cohort in a real world scenario. And so I think we have one of our fellows working closely with Todd to see if there is an opportunity to enhance the clarity and the transparency associated with large datasets and see where there may be the greatest possible opportunity to make a difference.

Margaret Flinter: Dr. Smith, your colleague at West Health that we referenced little while ago, Dr. Eric Topol, spoke about the need for training the next generation of health care providers. That's a subject near and dear to our hearts in primary care, and to train them to understand these emerging areas of genomics and telemedicine and other innovations in care that are contributing to the transformation of health care. Tell us about how you at West Health are approaching innovation in heath professional training in your fellowships and how might these fellowships and the training that you are doing disrupt the traditional model of health profession's education.

Dr. Joseph Smith: We have talked about how fertile this intersection is between technology and medicine and it does require energized individuals. We are lucky to have a couple of these present with us at Scripps Wireless Health Scholars. This is the notion of taking folks who are already trained physicians, many board certified, exposing them to the engineers and kind of the technology that may be amenable to use in clinical scenarios where people really haven't explored the full opportunity. And the number of ideas that quickly fly are almost hard for us to keep track of and then we also have a fellowship with the UCSD here as well. As energized as they are, they are still too few. So we are trying to set an example of how to do this. And one of them came up with a really cool idea and we have been able to provide enough resources that here in the near term that's likely going to be its own little startup company because the idea looks like it could really make a big difference. And so we love this opportunity. It is again this fascinating coalition between energetic people and a tremendous need, an unmet need to make health care much more affordable. And so San Diego is a terrific environment for that because unlike the East Coast where I did all my training, where the model is one more of excellence through local competition, here there is more a model of excellence through collaboration. And so of course it takes smart people in the middle and so we are delighted to have these fellows take advantage of the opportunity.

Mark Masselli: Well you not only have smart people but you have a sweet organizational design at West Health and you have two not-for-profit branches and you also have two for-profit branches, the West Health Investment Fund and the West Health Incubator. We are always it seems at the garage phase of innovation around health care and it looks like you have got a nice collaboration that goes on to support the activities that go on. Tell us about some of the promising investments that you have made as well as other innovations that are underway at West Health.

Dr. Joseph Smith: The structure that we have adopted with the four organizations is not accidental. If you come up with a good idea or you see other people with them, how do you then go the next step and so part of that is small business incubation. If you think about an innovative and entrepreneurial community, it's really everywhere, and so how do you accelerate the work of

others. And that got us to starting an investment fund. And then ultimately, it doesn't really matter if you come up with a great solution if the public policy environment or the incentives for payment aren't aligned so that they can be appropriately used. And so that got us to be quite active in Washington DC at a policy center.

To spend a moment on the investments, all of the investment proceeds go back to the charitable mission. And all four of these organizations share the same vision and mission which is how to lower health care costs in United States. Along the Big Data theme, we have a small investment in Humedica, it's a Boston based company that's looking really hard to make sure that when you look at Big Data collected for multiple hospital systems, you are not going to get kind of waylaid by casual descriptions of patients. And they do natural language processing of doctors notes to better understand that when someone gets coded as having diabetes do they really have diabetes or if they are exposed to a particular therapy, are they really taking it. So we like them for the Big Data play.

In terms of health care transparency, particularly transparency around pricing, like a small company that we invested in called Change Healthcare, and they are working with large employers to make sure that when their employed population needs to make a health care decision that they understand the price and as best they can the value. And then when we think about this notion of taking care of people with chronic diseases when they are not in the hospital, we have invested in a small Minnesota company called Healthsense. And they work very hard to look at these kind of continuing care models of retirement communities where you have a spectrum of different forms of living scenarios on one campus to instrument the apartments and the people's homes so that it's easy to look in on them either from the vantage point of the organization or even from their family to make sure that mom's up out of bed, she's taken her medicine and everything is pretty much okay or not. And that gives you a way to prioritize who you need to check in on in a given day. And so this notion of less intrusive but appropriate at distance monitoring to make sure that people are doing okay with their chronic diseases, we like that as an opportunity going forward.

Margaret Flinter: We have been speaking today with Dr. Joseph Smith, the Chief Medical and Science Officer at West Health, whose unique mission is to advance innovative and cost effective technology innovations and solutions that will lower the cost of health care in America. You can find out more about the work they do by going to www.westhealth.org and follow them at West Health. Dr. Smith, thank you so much for joining us on Conversations today.

Dr. Joseph Smith: And thank you today. It's been a real pleasure.

(Music)

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: Well, Mark and Margaret, this week, we will look at a false claim from Mitt Romney at the first presidential debate. Romney claimed that a new board setup by the Affordable Care Act will "Tell people ultimately what kind of treatments they can have". But that's not true. This board will recommend ways to reduce the growth in Medicare spending, it has nothing to do with health care for all Americans and it is forbidden from rationing care or reducing Medicare benefits as stipulated in the law. The board, it's called the Independent Payment Advisory Board, is a 15-member panel made up of health care experts, doctors, economists, and consumer representatives. Republicans have long claimed that this board was made up of bureaucrats that would ration care. But the board has no power to do so, and in fact, the law puts a lot of limits on what exactly the board can do. The non-partisan Kaiser Family Foundation said that this board would have to find savings from Medicare advantage and the prescription drug program, skilled nursing facilities and home health, dialysis, ambulatory services, and durable medical equipment. The board's recommendations can be overridden by Congress but it needs a 3/5th majority in each house to do so. 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.

(Music)

Each week, Conversations highlights a bright idea about how to make wellness a part of our communities and everyday lives. Sitting down it seems can be as potentially deadly as smoking. If done for long periods of time, and over a long period of time, that's not good news because we are a nation of sedentary sitters, and it turns out sitting is a big contributor to our obesity epidemic, to the rise in diabetes and heart disease and a host of other illnesses. So when Steve Bordley was injured in an accident a few years ago, the active former elite athlete ended up sitting in a wheelchair for almost two years, and during that time, he gained a lot of weight. And when he had to learn to walk again, this former distance runner began to see the health benefits of just walking, not intensely but consistently throughout the day. Now the surgeon general recommends 10,000 steps a day to maintain good health.

10,000 steps a day is kind of a benchmark that the surgeon general has set for the minimal amount of steps that an American should take. And the University of Tennessee about two years ago did a study and found that the average American walks less than half of that amount. So we are actually deteriorating if we are walking less than that.

When he was able to go back to work, he worried he was going to slide back into the pitfalls of sitting. His solution, he created the TrekDesk. Bordley designed a modular standing desk that fits over any exercise machine, the idea being if you just walk slowly but consistently, the effects would be tremendous.

I was literally walking 10 hours a day very slowly, and within a period of about six weeks, I lost more than 25 pounds, my back problems went away, and I was sleeping like I did when I was in my 20s. I felt tremendous.

And some research today, bears him out. Walking slowly throughout the day does seem to do remarkable things for your health, reduce your chances of getting Type-II diabetes, reduce the risk of certain cancers, and maybe even reduce the incidence of first heart attacks. And it runs about $500, maybe 10% of the cost of some high-end models for exercising out there, and it can be assembled in under an hour.

People should at least move throughout the day. Whatever they can do to move is critical to their health and that's really the message that we are trying to get out. 10,000 steps are the minimum. Everybody should know the amount of steps they are taking during the day.

The TrekDesk, a simple reconfiguration of the typical workspace but one that allows for purposeful movement throughout the day, improving health and well being, and cognitive skills, now that's a bright idea.

(Music)

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.