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

Margaret Flinter: And I am Margaret Flinter.

Mark Masselli: Well Margaret, the Olympics are just a few days away and there are going to be a lot of people who are going to be watching people exercise. We hope they get up off their couch and do a little themselves. We all need it.

Margaret Flinter: Well I always find it highly motivating to watch people running and pole vaulting and swimming and doing all the other things they do. And of course, our great congratulations to all of those who will be representing America but really to the global world athletes, men and women alike.

Mark Masselli: Absolutely. And it is really a time where we can kick off wellness and health as people hear about the stories of young people who have moved to the top of their sport and excelled.

Margaret Flinter: Well it reminds me that we often hear the expression "It's a marathon not a sprint", when we talk about endurance and perseverance. And I think that's a great way to think about in terms of the HIV AIDS epidemic which is now 30 years old and something which has required long sustained effort and maybe beginning to show some real promise of moving to the end.

Mark Masselli: And this is a first for the United States for a considerable amount of time to bring AIDS activists from all over the world gathering in Washington. Secretary Clinton, Bill Gates, Elton John, so from all walks of life, they are all here working on trying to hopefully focus in on the end game of the AIDS epidemic.

Margaret Flinter: This year, the theme is Turning the Tide Together, which just as it would sound, would give some hope that we really are reaching a turning point.

Mark Masselli: And speaking of changes, Margaret, we have a fascinating guest today. Dr. BJ Fogg is Director of the Persuasive Technology Lab at Stanford University. He has developed industry standards for designing technology that helps us make healthy behavior changes.

Margaret Flinter: He will be talking about how our mobile phones are a vital tool in managing our own personalized wellness and our health care into the future.

Mark Masselli: And we will be hearing from FactCheck.org, Lori Robertson, looks into GOP claims about taxes in health care law.

Margaret Flinter: And no matter what the topic, you can hear all of our shows by Googling CHC Radio. And as always, if you have got a comment, email us at www.chcradio.com; we love to hear from you.

Mark Masselli: Or send us a note at Conversations on Health Care Facebook page. We will get to BJ Fogg in just a moment 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 this Headline News. 25,000 descended on the nation's capital for the AIDS 2012 Summit, a biennial gathering of the top researchers and policymakers in the world of AIDS. And while the theme is Turning the Tide Together, much work still lies ahead as the rates of new infections continue at a pace. Trials of vaccines have been only marginally successful. The most promising front on stemming the spread of AIDS is through treatment protocols that have managed to make the virus almost disappear from the body, thus making it harder to transmit to others. While fewer people are dying from AIDS, the drugs are expensive and not always used properly. The so-called Berlin Patient was at the conference this week, an HIV positive man, who also came down with leukemia. A bone marrow transplant cured him not just of leukemia but also eradicated the AIDS virus. They are calling it the first cure.

A drug that had looked promising in the fight against Alzheimer's has failed in the third phase of clinical trials. Pfizer and two other drug companies were testing a compound that's supposed to block the production of the (03:25 inaudible) thought to be the cause of Alzheimer's. Subjects in the third phase of the clinic trial showed no slower rate of cognitive decline than those given a placebo in the study.

And Medicaid expansion and the Health Care Law, a number of states are vowing not to expand Medicaid to include a broader swath of low-income patients. But the head of the Cleveland Clinic warns that's a bad idea. Toby Cosgrove said, states that refuse to expand their Medicaid under the Affordable Care Act will see higher insurance rates and lower reimbursement for clinicians providing care to that population. Meanwhile, the ranks of those qualifying for Medicaid seem poised to increase. When the figures are released in September, its expected poverty rates will be the highest they have been since the '60s. I am Marianne O'Hare with this Headline News.

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Mark Masselli: We are speaking today with Dr. BJ Fogg, Founder and Director of the Persuasive Technology Lab at Stanford University. He is the author of Persuasive Technology: Using Computers to Change What We Think and Do, which explains how computers can motivate and influence people. Dr. Fogg is

co-editor of the books *Mobile Persuasion* and *Texting 4 Health* and has an upcoming book on *How Behavior Works*. Dr. Fogg, welcome to *Conversations on Health Care*.

Dr. BJ Fogg: Thanks for having me.

Mark Masselli: Now, you started examining the power computers have to change people's thoughts and behaviors back in the mid '90s. You are also founder of Stanford's Annual Mobile Health Conference, which examines the potential for mobile technology to impact health. In fact, you predicted mobile phone is going to be more powerful than any other channel for persuasion in the future. So tell us more about your theory on persuasion and why you see it being so pivotal in health outcomes.

Dr. BJ Fogg: When it comes to changing health behavior, one of the things that people designing the programs have failed to do is to think clearly about how behavior works. And so what I have developed over the years in response to, I guess in some ways frustrated seeing so many failures out there, is a clear, simple, accurate way to understand how behavior works. And in a nutshell, behavior happens when three things come together at the same moment: somebody is motivated to do that particular behavior, the ability to do it, and there is a trigger or a call to action that says do it now. And that's a pretty simple equation but I think it's an innovation to be able to crystallize it in those three things. And when you look at these behaviors you want to do or don't want to do, those three factors come into play.

Margaret Flinter: So Dr. Fogg, I am going to make a guess and you could tell me if I am wrong that that is the sort of operational definition of the Fogg Behavior Grid, would that be it?

Dr. BJ Fogg: Yeah, well that's the behavior model. The behavior model, when you write it out, $B=MAT$, and that's an equation, and for example, if you don't want the behavior to happen, you remove one of those items, you remove the trigger, you remove ability or you reduce motivation. So, whether you are trying to get behavior to occur like exercise today or whether you are trying to stop behavior like drink less carbonated drinks, the $B=MAT$ applies to all behavior types.

Margaret Flinter: That's very fascinating. But I was particularly intrigued to know that the World Economic Forum has selected your model for behavior change, this Fogg Behavior Grid, as their framework for health behavior change. I was surprised to actually hear the World Economic Forum had a framework for health behavior change. How did that come to pass and how did your model come to their attention, and why is this of importance to a group like the World Economic Forum?

Dr. BJ Fogg: Well that was thanks to Aetna. I mean they knew of my work and they were looking for a way to get clarity in a project in the health efforts at World Economic Forum, and so they worked with me. The Behavior Grid is essentially it describes 15 ways behaviors can change, and so, I created the Behavior Grid. There wasn't a clear systematic way to understand the different ways behaviors can change. For example, when you do something new one time, like let's say you have never been to a yoga class and you go one time, that's a very different behavior than quitting something from now on such as quitting smoking. So those are two examples. There are 15 types of behavior that I map out in the Grid. And it's a very useful framework I think for clarifying what kind of behavior you are wanting to achieve and then how to design for it, just mapping out in rows and columns as a result of these 15 different ways. And each one has its own psychology, has its own set of recipes that work for that behavior type.

Mark Masselli: That's quite interesting. I think we probably have the bigger broader brushstrokes of changes of behavior, the sort of epiphanies that occur and then sort of on the other extreme sort of slow or gradual persuasion that sort of occurs. It sounds like epiphanies are sort of rare in the field and it's more likely that baby steps will sort of yield a better and more meaningful change in someone's life. Connect the dots for us so with the work that you are doing on gradual behavioral health changes and what sort of the most recent experience from your Mobile Health Conference showed the world.

Dr. BJ Fogg: You are exactly right. I am not a fan of having designers try to create epiphany in people's lives. I think that's very hard and people have done that a long, long time and that approach almost never works. So instead, I advocate design for baby step or help people change the context. The world around you, your home environment, your work environment, controls a lot of your behavior. So it's those two levers you really have for changing behavior long term. Baby steps was the entire focus of the last Mobile Health Conference because I thought that was really important for innovators in health to understand how baby steps work.

There are more and more products coming out that are designed to help people change little by little and that's really exciting. If you don't exercise at all and you decide to install an app or get enrolled in a program where you are going to be exercising 30 minutes or 60 minutes a day, it's likely you will not succeed on that program. It's too big a shift. However, if you enroll in a program or start a path where you are exercising say 5 minutes a day and then 7 then 10 and you gradually make that change, I give you much better odds at succeeding. What happens when we take those small steps not only does our ability to do the behavior go up, which matters a lot, but then you also change the world around you to make it easier to do that behavior. You might have friends that you start seeing as you walk with them and so on. So you are getting both levers going.

Margaret Flinter: Tell us what you are engaged with in terms of texting certainly seems to be the preferred mode of communication for the 20 something and the teen something generation. How are you incorporating this with texting as the medium?

Dr. BJ Fogg: Yeah, I am a big fan of texting as a channel. Unfortunately, there hasn't been enough innovation using texting as a channel and people have fast-forwarded to apps thinking that somehow the richer experience would influence behaviors more. And that's not necessarily true. So, not only have I taught a class at Stanford that was all about texting and health behavior change, I ran a whole conference on it which did help to spark more innovation. But even so, people are overlooking the power of texting. In one intervention I was doing, this is about three months ago, I sent out the exact same message in texting as I did in email and I launched them at the same time. The replies in texting came back; I got 50% of the people replying within 30 minutes whereas in the email condition, only 8% of the people replied within 30 minutes. So there is something very immediate about texting, very personal.

And, in the US, we haven't done as good a job as organization FinAfrica. And if you look at examples in Africa, how they are using texting to communicate around health behavior and schedule appointments and monitor the environmental conditions, they are actually way ahead of us. Innovators have kind of thought it was not so cool, not so sexy, and they are looking at apps which I think are limited. The fact that you have an app and put it up on iTunes or make it available does not mean it's going to take off. So part of my work is highlighting where I think the opportunities are and to cautioning people when they have this magical thinking about we are going to create an app and suddenly people are going to change their behavior that's not necessarily true.

Mark Masselli: We are speaking today with Dr. BJ Fogg, Founder and Director of the Persuasive Technology Lab at Stanford University. He is co-author of *Persuasive Technology: Using Computers to Change What We Think and Do*, which explains how computers can motivate and influence people. Dr. Fogg is the co-editor of the books *Mobile Persuasion* and *Texting 4 Health*. Now, Dr. Fogg, you have been looking extensively at the power of social media to persuade and influence behaviors. Now, we had Nicholas Christakis, Professor of Medicine from Harvard University, who's spoken a lot about how disease or even behaviors can spread socially. I think he would subscribe too that it's not just what I do but it's really also influenced by my larger social network. How do you see your work and Christakis's work fitting together to further the spread of positive health behaviors and outcomes socially?

Dr. BJ Fogg: I think we both would agree that at the power of context, the world around us too influence our behaviors and that includes our social world. We are pack animals. Human beings, we are pack animals and we tend to be super influenced by our social world. So when you look at social media, it does have

big potential to change what we do for the better or the worse. However, the caution I have for people is Facebook is not the right platform for helping people for example manage their chronic conditions.

Now there are other online groups like PatientsLikeMe and so on that are good for that. But the path that I try to caution people about, you have to understand that Facebook is all about making yourself look good. That's the essential psychology of Facebook. But it's not a platform for announcing that you are managing diabetes or trying to lose weight and get social support through that. It goes against the culture of Facebook a little bit. And even after how many years, 2007 I taught about Facebook, in 2008 did a lot of research, I have still never seen a health intervention that somebody has launched on Facebook that has been effective at scale.

Margaret Flinter: So, Dr. Fogg, you give us some great examples of ways that your students have used this new field of behavior design or designing apps and technology that affect behavior. What about the health care industry? Tell us about any collaborating you have done with organizations that look promising for yielding the next wave of health applications, and maybe wrapped in with that of course the question on everybody's mind, the anticipation that we will have millions more people accessing care and engaged in insurance, what do you see out there?

Dr. BJ Fogg: One of the things I didn't understand 10 years ago is how important employers are as a distribution mechanism for health behavior change. In fact, I would say the majority of opportunities to change health behavior is through the employer. So if you work at a large company and even small companies, often your employer has a health or a wellness program and it's really in their best financial interest to help you stay healthy. So, in the last few years, I have had a lot of opportunity to work with employers to help them understand how behavior works. The thing that I really worry about is this. Every time you try to change your health behavior, and you fail, you become less likely and less able to change your behavior in the future. So, if an employer launches some sort of program to get the employees active, and it doesn't help them succeed, they are actually doing damage to their employees, they are not helping them.

Mark Masselli: I was just thinking a little bit about weight loss. The data shows that hey, I can get you to do anything in over one year period. But over one year period, you sort of return to norm. So tell me a little bit about how this behavior persuasion works over the long term and what your data show in terms of successful outcomes.

Dr. BJ Fogg: The way I look at weight loss, it's an outcome from many other behaviors that you do, and those behaviors need to become habits. So as you create all of these very small habits, then it changes permanent. It's almost like the slower the change the longer it lasts. And the reason I think that's interesting

and almost always true is as you change slowly you are creating habits that stick with you, you are changing the context around you and those kinds of systematic slow changes I believe last.

One of the things we have done in our household the last year is there is no bread in the home. We have just decided we are not buying bread or bringing it in. That means we get a lot less bread. And then on the other side of things, developing a habit of going to the gym and once you go to the gym enough, you end up having friends there and they expect you to go and so on. So maintaining a crash diet or crash set of behaviors to lose weight is tough but if you view those things and approach those things as you are creating a whole new set of habits and those habits, probably hundreds of tiny habits that you create, then I believe you can sustain the weight loss because you have all those little behaviors that you do without deciding. That's really what a habit is, at least how I look at it, it's something you do without making a decision, it happens automatically.

Margaret Flinter: And I know you have launched a series of online webinars that are actually called the 3 Tiny Habits that exemplify this work. And folks can log on from anywhere in the world and be coached in making three small changes in behavior. Tell us about that project. Is there a next jump to sort of formal research look at this or are you just letting it take its own course?

Dr. BJ Fogg: So I started 3 Tiny Habits last December and it was a bit of an accident. I had some vacation I had in Vienna, I said, I am going to teach some friends how to do tiny habits. And instead of six or eight friends, I ended up with 60 people the first week then 150 the next week. So 3 Tiny Habits, it's a 5 day program; you do it Monday through Friday; the total time invested is about 30 minutes. And my goal in teaching it is to help people understand how habits work. And so in the program people pick three tiny habits whatever they want to do that I think is a true innovation. And the formula is this; after I, and then you pick some solid habit you already have, after I brush my teeth, I will, what is it that you want to sequence right after brushing your teeth. And in this case, for actually most people listening do not floss, that's what the research shows. So if you wanted to floss, the phrase would be, after I brush I will floss one tooth, not all your teeth, one tooth, make it really, really tiny. And then you just practice that. Every time you brush, you floss one tooth and then you celebrate that you actually achieved it.

The key here is you are training the routine, you are training automaticity that you go from brushing to flossing. And if you make that flossing painful in any way like I am going to floss all my teeth, I wager the habit doesn't form; your brain doesn't want you to do something again that's painful. But if it's small and simple and you celebrate it, your brain says, oh I want to do that again. So that's how I believe it gets more automatic. The success rate is really high. And some people describe it as a way to create habits without relying on will power or motivation. And so I am seeing patterns over and over with the kinds of tiny

habits that work very well but certainly there is a research opportunity. And there is some research I have done and some of the results are pretty surprising such as when people are creating these tiny habits, not that many people want their social world to be linked in with them. They are not thinking of this as a new social club to create the habit of flossing one tooth, and that was a little bit of a surprise.

Mark Masselli: Dr. Fogg, we like to ask all of our guests this final question. When you look around the country and the world, what do you see in terms of innovation that our listeners at Conversations should be keeping an eye on?

Dr. BJ Fogg: Well, lot of people talk about motivating behavior change, and I think that's the wrong phrase. I think if you are designing a product for yourself or somebody else, it should be facilitate behavior change. Simplicity is the overriding theme. One of my students is the co-founder of Instagram and one of the keys to Instagram is how simple it is, on that I think what's essential for the success. Next thing I would watch for is how the mobile phone can become sort of a (19:45 inaudible) or a sidekick to help us do what we already want to do. Apple theory is one of the latest iterations of that. I mapped out some things in '96 how health devices of the future would help us achieve our health goals and so on. So the idea is not new necessarily. Mobile devices are getting smarter and smarter to be able to anticipate what we want to do or what we might like to do at any given moment. The potential there is one reason why I said the mobile phone is the most important platform for changing behavior. We are still probably about 10 years away just for seeing the real impact that has but that smart thing that's with us, almost always with us, and it can access data. So I think what's missing are putting together the pieces of inferring what does BJ want to do when he is in Barcelona after giving a lecture at a business meeting. In the future, my mobile phone will know exactly what to suggest or maybe give me a set of options and I will appreciate it. So I won't feel like it's manipulating me, rather it's helping me do what I already want to do.

Margaret Flinter: We have been speaking today with Dr. BJ Fogg, Founder and Director of the Persuasive Technology Lab at Stanford University. Dr. Fogg is co-editor of the books Mobile Persuasion and Texting 4 Health. Dr. Fogg, thank you so much for joining us on Conversations today.

Dr. BJ Fogg: Thanks for having me.

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 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: Well, Mark and Margaret, as you know, the Supreme Court said that the mandate penalty in the Affordable Care Act was a tax, and that has sparked a few misleading claims about the law. We noticed a new republican talking point from several GOP lawmakers who claimed that the Congressional Budget Office said, 75% of the law's taxes would be paid by families earning less than \$1,20,000 a year. But that's not what the CBO said at all. Instead, it said that 76% of those who would pay the penalty or tax for not having health insurance would earn under that amount. They wouldn't be paying 75% of all the taxes in the law, in fact, they are not even going to pay 75% of the mandate penalties. That's because the penalty increases with higher incomes. The CBO estimated in a 2010 report that three million taxpayers who earn less than 500% of the poverty level, and that's \$120,000 for a family of four, would pay an average of \$667 a year as a penalty for not having insurance. 900,000 taxpayers who earn more than that would pay the penalty but they would pay an average of \$2556. So don't believe it if you hear this talking point about lower income earners paying 75% of the law's taxes. 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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Margaret Flinter: Each week, Conversations highlights a bright idea about how to make wellness a part of our communities and everyday lives. It's summertime, a time when farmers' markets across the country are offering communities fresh, healthy, locally grown produce. But often, those most in need don't have access to the abundance of healthy foods that we can find at these regional markets and they can't use their government funded food assistance at these markets either. The US Department of Agriculture wants to change that. These markets often spring up in areas without a communications infrastructure which means that the recipients of the SNAP program but it's more commonly known as the Food Stamp Program, and the farmers they buy from can't utilize the system that would allow them to pay for these foods electronically. Deputy Secretary Kathleen Merrigan just announced \$4 million in grants to provide funds for wireless technology that will allow SNAP recipients to buy food at farmers' markets using the Electronic Benefit Transfer System. Currently, only 1500 of the nation's 7000 farmers' markets are equipped with the technology, which Secretary Merrigan says will not only allow SNAP recipients to access locally grown produce but will increase business for the farmers as well. A grant program that brings healthy local produce to families who need it while increasing business for local farmers, now that's 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.

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