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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, it's that nail-biting time of the year when 4<sup>th</sup> year medical students find out which residency program they are being matched with.

Margaret Flinter: Well, that's an exciting time for the US medical school grads, and in total, there is a record number of physicians applying for residencies. And a particularly good news Mark, more applications for primary care residencies this year than we have seen; an increase by 400 to roughly 6400 who are planning to have primary care careers.

Mark Masselli: Though estimates vary, projected shortfall of primary care physicians is looming large. And there are provisions in the Affordable Care Act aimed at addressing that shortfall. I should note one of them which is our own Nurse Practitioner Residency Program, which you started, and we have eight slots this year, and we are looking forward to a great crop of residents.

Margaret Flinter: That's right. And it's going to be interesting to follow the trends around primary care and who chooses to be a primary care provider and how we adapt our training systems to meet their needs. But this is a good start seeing an uptake in the number of medical students choosing primary care residency.

Mark Masselli: There is another trend that I think we are going to hear a lot more about, and that's the call for transparency in health care pricing. The lack of pricing transparency has been a big driver in increased health care cost.

Margaret Flinter: Recent report yielded some pretty dismal findings. 29 states around the country get an F for health care pricing policies that are supposed to assist patients and families when making health care decisions.

Mark Masselli: That's because in those states, there are laws allowing insurance companies to keep their pricing hidden from patients until the patient gets the bill. Can you imagine buying a car or going to a restaurant with that sort of policy?

Margaret Flinter: Well, that would be sticker shock to a significant degree. And it's a problem that was very clearly elucidated in a recent article in Times Magazine by Steven Brill, who found wildly varied price quotes for the same exact procedure across multiple hospitals in just one community. So I think Brill has really shown the spotlight on the scope of the problem.

Mark Masselli: And the report card that was put out by the nonprofit Catalyst for Payment Reform only showed two states that scored an A, Massachusetts and

New Hampshire. Suffice to say when it comes to price transparency in health care, we have a long way to go in this nation.

Margaret Flinter: And our guest today is seeking to improve transparency of another kind, and that's making more public health and medical data available through Health Information Technology. Bryan Sivak is the Chief Technology Officer for Health and Human Services, and he talks about the trend at HHS to open source as much health data as possible.

Mark Masselli: Lori Robertson of FactCheck.org looks at claims that the health care law is a tax burden on the middle class.

Margaret Flinter: And no matter what the topic, you can see all of our shows by Googling CHC Radio.

Mark Masselli: And as always, if you have comments, email us at CHC Radio or find us on Facebook or Twitter. We would love to hear from you.

Margaret Flinter: Now we will get to Bryan Sivak in just a moment.

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

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Marianne O'Hare: I am Marianne O'Hare with these Health Care Headlines. The federal government will likely be playing the role of enforcer in several states. Vocal, even vociferous opponents of the health care law are refusing to follow directives in the law that ensure changes are made to the state insurance markets to adhere to new ACA guidelines. Texas, Oklahoma, Wyoming, and Missouri have refused to enact legislation that would set new parameters on the insurance industry to align with insuring all Americans by 2014. This leaves federal health officials no choice but to take measures to pick up the slack in those states.

Meanwhile, 71 million Americans received some kind of free preventive screening thanks to the Affordable Care Act. The report by the Kaiser Family Foundation combined with US census data yielded the figure. Preventive screening and early detection are the best known deterrents against expensive and catastrophic illness.

The coming Tsunami of Alzheimer's, it's the theme of this year's TEDMED Conference in April. It would appear the first waves have hit the shore. Study shows the number of deaths from Alzheimer's increased to 68% from 2000 to 2010. It's now the 6<sup>th</sup> leading cause of death for which there are few treatment

options and no known cure. I am Marianne O'Hare with these Health Care Headlines.

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Mark Masselli: We are speaking today with Bryan Sivak, Chief Technology Officer for the Department of Health and Human Services. Mr. Sivak recently served as the Chief Innovation Officer for the State of Maryland and was Chief Technology Officer for the District of Columbia. He got a start in the private sector as an IT entrepreneur and is co-founder of several successful startups including Electric Knowledge, which created one of the world's first natural language speaking search engines. Mr. Sivak has also been a long time promoter of co-chairing open source methods of expanding IT innovation. Bryan, welcome to Conversations on Health Care.

Bryan Sivak: Thank you very much.

Mark Masselli: You know, your job at Health and Human Services is to harness the power of data, technology and innovation to improve health and well-being of our nation. And you took over from Todd Park who we like to say Todd's middle name is liberate data, who initiated that role, and you are monitoring everything from health care options for millions of Americans from keeping food safe to infectious disease outbreaks at bay. The health data management volume seems to be pretty staggering. So tell us a little bit about the programs like HealthData.gov as well as the health data warehouse and how they are helping HHS shift to a more open and transparent government.

Bryan Sivak: Sure. One of the most amazing assets that we have here at the Department of Health and Human Services is really the vast quantity of data that our agencies create and maintain. And it's been realized for a while now that this asset really needs to be leveraged to a greater extent. And so as you mentioned a few years ago, my predecessor Todd Park came in and really started focusing on getting this information out to the public, to the entities that could actually take advantage of this. Entrepreneurs, insurance companies, providers, anyone in the system actually, consumers, I mean anybody who touches the health care system at all can use this information.

We, over the last few years, have undertaken a fairly significant program to liberate this data, which really means changing the default setting inside HHS from one of sort of protection of this asset to one of release of this asset. And we have done a great job I think to this point of really changing that default, getting people to realize that data is valuable, that it should be open by default with obvious protections in place for making sure that we don't release personally identifiable information. The I would say most recent manifestation of this is the HealthData.gov website which is sort of the second version of our data warehouse. And we are building this actually all on Open Source technology so

that anybody can use this for themselves, contribute code, improve the system itself. But internally, the whole idea is that we are making a system that should be easy for people to interact with in order to upload their datasets so that we can make it available to just about anybody out there.

Margaret Flinter: Bryan, you have said that in the past you had a ton of fun during your early days as an IT entrepreneur. But much of what spawned that early innovation was collaboration with peers on how to build these better platforms for data sharing. Now you have shifted your skills to the public sector and you have an opportunity to help government, help innovators which you have euphemistically called an interesting challenge. So tell us about these unique and interesting challenges that you face in bringing public entities and bringing government into this 21<sup>st</sup> Century exciting world of data sharing and IT innovation.

Bryan Sivak: So the first thing I will say is you should always beware when a geek calls a problem interesting because that's usually code for very, very difficult. But as you mentioned, I started my career at a college basically writing code for a startup that I co-founded. And I am a tech entrepreneur at heart and I kind of always self-identify as one. But one of the things that I think I realized in this role, or in that world I should say, is that success is really all about being able to accept risk and learn from mistakes. And I think that's one of the biggest challenges in the public sector is just the willingness to take on risk. If you think about the idea of innovation, either in technology or in any sense, it requires experimentation. So I think if we want to innovate in the public sector, we need to learn how to take some chances. If I look across the now three different jobs that I have had in government at all different levels of government, really in order to innovate, we need to take some of these chances, and my job is really to help assume this risk. The other thing I would say is that governments in general are sort of large somewhat ossified entities that have very established silos and walls between various programs and entities. And there is a huge amount of value that's trapped up in those silos.

Mark Masselli: You have also been engaged maybe at Maryland when you launched the program called Civic Commons which inspired by an attempt to get more interconnectivity between the states and the governments. It seems to me it's sort of a virtual back-end for states if you will. Can you tell us more about how Civic Commons Initiative works and sort of the policy behind it and what's the funding mechanism moving forward?

Bryan Sivak: Yeah. So the first thing I will say is that was an idea we hatched back in DC with Code for America. Not just within organizations but across jurisdictions, people are working on pretty much the same thing over and over and over again. So if you look at cities, almost every city has to have a certain set of infrastructure that they need to create in order to operate that city effectively, and we end up not doing a good job of sharing some of those things.

And you see this repeated over and over again as you go up the jurisdictional ladder. And so really what Civic Commons was, it's an attempt to provide a relatively frictionless platform for sharing not just code or applications but also ideas or policies or funding methodologies or what have you in order to reduce the initial cost of development, reduce the cost of maintenance going forward, spread good ideas. That was really the intention behind it.

Margaret Flinter: Bryan, it seems as we look back, the Obama Administration made a pledge to continue to work on making government more open and more transparent. And one of the initiatives in keeping with this goal is a partnership between Health and Human Services and the Institute of Medicine to launch the Community Health Data Initiative making the data more available to innovators and entrepreneurs. HHS recently participated in the Health Datapalooza Forum in Washington DC. Tell us about some promising innovations that are growing out of those efforts that were unveiled there.

Bryan Sivak: Sure. So the Datapalooza, as we affectionately call it here, it was actually the third iteration of this event which started roughly two and a half or three years ago. And I think it's pretty amazing when you look at the path that it's taken. It started like I said a couple of years ago with 40 people sitting in a room in a pile of data and a challenge to come back 90 days later with some interesting applications. It turned out that 90 days later, over 2000 people showed up or 2000 different applications were presented that showed us the potential for utilizing this data that we have. And it's grown ever since. The second iteration was somewhere around 600 people. The Datapalooza III had 1600 people; there were over 200 apps that applied to present. I mean it's really been quite phenomenal.

You know, a couple of good examples that have come out of this, there is a company called iTriage that we talk about a lot. This is an entity that was started by an ER doc basically trying to use mobile applications to diagnose individuals based on certain symptoms that they were presenting and then they leveraged some of our data in order to help drive people to the right provider at the right time based on the diagnosis of those symptoms. They were actually bought by Aetna recently. They have got 80 people; they are growing; they are doing really well. And so that's a great example. Another good example is a company called Humetrix, which for those folks out there who have heard of this I think called Blue Button, basically there is this technology that we have been working on in conjunction with the Veterans Administration for the last couple of years which allows people to click a little blue button on a website and get their personal health record. This version of it doesn't have any specific structure associated with it and so what Humetrix did was created an application called iBlueButton which essentially takes this download of personal health data and translates it into a visual representation that's useful for the patient and for the doctor and for whoever else needs to see it. So that's another great example of an entity that has come out on this.

Mark Masselli: We are speaking today with Bryan Sivak, Chief Technology Officer for the Department of Health and Human Services. Mr. Sivak recently served as the Chief Innovation Officer for the State of Maryland. He was Chief Technology Officer for the District of Columbia. Let's talk a little bit about innovation and it seems to be central to the new paradigm at HHS, and in fact, the department just announced its 5<sup>th</sup> round of winners in the HHSinnovates Program, which is intended to facilitate the exchange of innovative ideas that will enhance health and well-being for Americans. And so for the first time, you had a people's choice winner and allowed the public to vote on this. So can you share with us some of the more exciting innovations that came out of this program and also how much participation did you get from the public on this?

Bryan Sivak: Sure. So as you said, this round, we had the first iteration of the people's choice awards, which was pretty exciting. We let the world basically vote on the finalists.

Mark Masselli: By Twitter or how did they vote?

Bryan Sivak: No, they voted on the Internet.

Mark Masselli: On the Internet.

Bryan Sivak: Yeah. We had a webpage up on our site. But Twitter is a good idea; maybe we will do that next time. We actually had remarkable participation; it was kind of cool. Tens of thousands of votes were cast. And one of the winners actually of this round I think the story is pretty awesome. The National Institute of Allergy and Infectious Diseases basically came out with this application they call FreeStuff and it's a really simple idea I think but it's a powerful idea. Basically in the past, you would have a bunch of stuff within the organization that people had bought overtime they didn't need anymore. And typically, these things, whether it's like a piece of lab equipment or a piece of furniture, would go back into some warehouse in the middle of Maryland to sit there for a while until some government process actually took care of it. Nobody really knows how that works or what happens to it. These guys realized that just because I don't need this centrifuge anymore somebody else might be able to use it. And so they put together essentially think of it as Craigslist for government equipment, a website that internal employees can actually look at.

Mark Masselli: Is there actually a big room like Raiders of the Lost Ark at the end where they find the Holy Grail, is that --?

Bryan Sivak: In my imagination, yes. And I hope that somewhere on one of those shelves is an ark. But yes, I mean this story to me is pretty cool because basically the idea for this came up literally when this employee of this agency was out for a run one day. She goes back to the office, recruits a couple of

people and in their spare time they put it together. And a little while later, now it's being nominated for the HHSinnovates Program and it wins and it's great. So that's a great example. Another great example I think is the Center for Disease Control's Zombie Apocalypse story; I don't know if you guys have heard of that. But basically they used this marketing campaign of a zombie apocalypse for disaster readiness. And it won because I think it was very unique and different for governments to start marketing from this perspective. But the coolest thing happened to me the other day. I was on an airplane back from San Francisco to DC and I was sitting there the whole flight working, putting my stuff away at the end and the guy sitting next to me, he had seen me kind of working this whole time and asked me what I did. I told him my job. And he looked at me and says I have one question. I said what's that? He said, what are you guys doing about the zombie apocalypse? It blew my mind right because there is a random guy kind of on this airplane who had heard about this stuff and knew some of what we had been doing which probably wouldn't have gotten out there had we not done a program like HHSinnovates. So I think these things really have some very significant effect.

Margaret Flinter: Well Bryan, I have to tell you the zombie apocalypse was a little bit like the Martian Invasion in some communities where people did take it kind of seriously. And one of the words that keeps coming up over and over in various manifestations is "connect", and this is sort of central to the work that you are doing. It seems connecting such disparate data that is stored and managed by HHS. And when you go to your [www.healthdata.gov](http://www.healthdata.gov) website, as our listeners are probably doing, there is a nice visual there that links all these programs into a constellation, Medicare, Medicaid, the Center for Disease Control, and anybody can access the site and find all kinds of significant health data on numerous topics. So the question to me is who is using the site and who is mining the data? Is it public health officials, people working on community transformation, clinicians? Are you able to glean some intelligence on who is using the data in the public?

Bryan Sivak: We have ton of anecdotal evidence that people across the spectrum are actually using [www.healthdata.gov](http://www.healthdata.gov) and accessing the datasets, doing interesting things with the information. But we are constantly working on engagement and trying to get other folks and different communities involved. In fact, one of the big efforts that we are undertaking right now is really one of kind of connecting different groups of people that don't typically think about health data and kind of bringing them into the fold. So I think in the past you really needed to be a subject matter expert to understand a lot of this stuff. We are going to try to make some of these pieces of information more accessible. We are going to try to reach out to developer communities, to entrepreneurs, to venture capitalists, to any doctor out there. I mean all of these different communities that we want to get involved, we are going to try to broaden the tent a little bit and get more and more folks involved.

The neat thing is that since we launched HealthData.gov, I mean we have had hundreds of thousands of visits on the site and we are constantly improving the functionality. I would stress one thing is that this is sort of -- I would slap a beta label on this in a lot of ways because we are constantly looking at different things that we can do to make it more usable and more functional. And we are going to be doing some stuff around that in the near future so keep your eyes on it.

Mark Masselli: Is that part of the government's new digital strategy? I know it's focusing on three things making content more accurate, available and secure, and you have been promoting Application Programming Interfaces or APIs which are tools for building software applications as an important part of that process. So tell us about these APIs and why they are so important in securing meaningful use of government health data.

Bryan Sivak: Sure. So basically what an API does is it allows a developer to access content and data in a machine readable but more importantly a predictable way. So they can make a functional call to a service and actually get a piece of data back that they expect in a certain format and then they can do something with it because it's in a certain format. You know, in the past, developers have had to resort to techniques for example like screen scraping where they literally tried using a program read what's on a screen. And that's obviously a very brittle way to do something because if the format of the display changes then we obviously have a challenge with having to update the program. So there are some great examples out there. I think one really quick one is an app called Healthline that was built basically using APIs that the National Library of Medicine puts out and that's all about basically providing information to consumers, beneficiaries about diseases and conditions and all kinds of stuff like that. And that's just one example; I mean there are plenty of other ones. And one of the components of the digital strategy is actually to API enable as much content and data as we possibly can to make this even easier for everybody.

Margaret Masselli: We have been speaking today with Bryan Sivak, Chief Technology Officer for the Department of Health and Human Services. You can find out more about these innovation initiatives by going to HealthData.gov. Bryan, thank you so much for joining us on Conversations on Health Care today.

Bryan Sivak: My pleasure. Thanks for having me.

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Mark Masselli: At Conversations on Health Care, we want our audience to be truly in the know when it comes to the facts about health care reform and policy. Lori Robertson is an award-winning journalist and Managing Editor of FactCheck.org, a 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, we recently heard competing claims about the amount of taxes in the Affordable Care Act. Senator Ron Johnson, a Republican from Wisconsin, said that there were “\$1 trillion in middle income tax increases,” and Democratic Representative Debbie Wasserman Schultz said that there are not \$1 trillion in taxes. So what’s the truth? Well, the law will cost \$1 trillion over 10 years that includes taxes, fees, penalties for not having insurance and associated revenue effects which occur when employees receive higher wages which are taxed if they drop or lose their health insurance which is not.

But Johnson exaggerates when he says all of these taxes and fees would be middle income tax increases. And he ignores the fact that the law will help millions of middle income folks by insurance. The taxes and fees in the law fall heavily on upper income tax payers and businesses. More money comes from fees on businesses in the health care field and penalties on businesses that do not offer insurance to their employees. Some will be subject to a penalty for not having health insurance. But less than half of the penalty revenue will come from those earning less than \$120,000 a year. 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](mailto:www.chcradio.com). We will have FactCheck.org’s Lori Robertson check it out for you here on Conversations on Health Care.

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Mark Masselli: Each week, Conversations highlights a bright idea about how to make wellness a part of our communities and everyday lives. The nation is battling an obesity epidemic and it's hitting our children especially hard. Turns out the very thing perceived to be one of the causes, the sedentary pass time of sitting in front of a screen playing video games, could provide a great solution. The folks at HopeLab have cooked up another video game aimed at improving kids’ health. Now comes Zamzee, a competitive video game designed to get kids moving. HopeLab’s VP and Communications Director Richard Tate says it’s a pretty simple concept, equip kids with a movement monitor which they plug into their computer at the end of the day and compete against other kids on how much they moved that day and there are rewards for each kid based on their level of activity.

Richard Tate: The Zamezee website uses sound principles of motivational science to get kids moving more where they experience success and feel competence and mastery and that kind of positive experience keeps kids moving overtime.

Mark Masselli: And as with their game Re-Mission, when kids compete with a larger population, they are more inclined to want to succeed.

Richard Tate: And there is a sense of discovery and excitement to see how many points you have earned, you see how many points you are racking up overtime, and then with Zamzee, those points actually power your online experience and allows you to compare and compete with others on the site.

Mark Masselli: HopeLab has been investing in Zamzee and the results are significant. Kids playing the Zamzee video game moved in average 60% more per day than kids in the control group that didn't have the game at their disposal. A simple movement monitor connected to a competitive video game that could motivate millions of kids to move more during the day, improving their health, well-being and longevity, 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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