(Music)

Mark Masselli: This is a Conversation on Health Care. I'm Mark Masselli.

Margaret Flinter: And I am Margaret Flinter.

Mark Masselli: Well, Margaret, the rollercoaster ride in Washington is over, they have passed continuing resolution and address the budget crisis at least for now, but it's had a big impact on millions of Americans across this country.

Margaret Flinter: Mark, I think we have managed to avoid disaster but done with the tactic just too familiar too often kicking the cane down the road to be dealt with at another time.

Mark Masselli: You know the women of the senate came together both bipartisan democratic side and the republican side and they put together a proposal that's accepted to push the temporary budget out till January 15th in **(0:46 inaudible)** February 7th my hope is that this is a lesson for both the House and the Senate, that they have to come together in a bipartisan way to move the agenda forward.

Margaret Flinter: Mark, I do understand that there were some compromises made and is part of the deal conservatives and house to mend that additional income verification for folks and rolling in the online insurance marketplaces under Obama Care. But really income verification was already part of the law's requirements and part of the exchange applications.

Mark Masselli: It really was and we'll see how old these gets carried out over the next few months.

Margaret Flinter: And speaking of the Affordable Care Act in the exchanges does exchanges have been up in running for a few weeks now kind of a tale of two nations the states that set up their own exchanges at least on a tactical level have reported a much smoother process but in the States 36 of them that are relying on the federal exchange they've really been be developed by IT problems since the beginning.

Mark Masselli: There's going to be autopsy in all of these at some point where people will look critically at it there already are some as you said some very good activities going on in different states and hopefully that will spread across the country.

Margaret Flinter: And people out there who've been trained to help people one group is Enroll America that's a national volunteer organization that deploying people to assist in the online application processes especially in the states that haven't developed as much support as they may need.

Mark Masselli: And you can find out more about Enroll America by going to enrollamerica.org.

Margaret Flinter: And in spite of all the focus on enrollment in the Affordable Care Act dramatic change is happening everyday in Health Care and out guest today knows a lot about that, that's Dr. Dennis Charney the Dean of the Icahn school of Medicine at Mount Sinai in New York City, where they are undergoing a massive transformation in their health system as well as in the medical school that train the health professional of the next generation.

Mark Masselli: You know they are making Big Data a central player in their restructured medical school program as well as in their health system Dr. Charney will tell us about the changes going underway that are transforming their approach to training the next generation of medical professional. It looks like it interesting model for other medical training institutions to learn from.

Margaret Flinter: And we will also hear from Lori Robertson managing editor of FactCheck.org who will be looking into some false claims about health reform that have been spoken recently in the public domain.

Mark Masselli: No matter what the topic you can hear all of our shows by goggling CHC Radio. And as always if you have comments please emails us at chcradio.com or find us on Facebook or Twitter we'd love to hear from you.

Margaret Flinter: Now we'll get to our interview with Dr. Dennis Charney in just a moment.

Mark Masselli: 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 these health care headlines. Government is back in business after a weeks long shut down and what did it cause the American economy about 24 billion dollars according to estimate from standard in poor rating agency. Wall Street analyze predict dire consequences if congress doesn't get act together soon China has already downgraded its rating of the Americans treasury bonds due to the shut down new default and un resolve debt ceiling issues. What didn't make it pass to shut down was a GOP attempt to repeal the medical device tax, it's part of the Affordable Care Act design to help raise funds to pay for the law. Meanwhile things are turning along slowly on the federal health exchanges while they remain open some predict many weeks or even months of round the clocks troubleshooting before that system wraps up to full speed. And while they're running more smoothly for the most part they are glitches and hanging ups on the state base exchanges and number of states are reporting problems with their list of doctors procedure and medications shown to be covered by each of the plans, covered California had remove their doctor list entirely because it was so problematic.

On the whole states are doing a fairly good job of assisting residence in signing up for coverage. Meanwhile market calendar is spending authority only continues to January 15th, and the federal borrowing privileges extended through February 7th the budget debate and accompanying wows are far from over. And simultaneously it's time again for open enrollment for Medicare coverage seniors are being urge to really redefine prints this year, a number of plans may have different coverage than the previous year, seniors being told not to assume their coverage will remain the same. Mirror, mirror on the wall what city is the largest drug consumer of all, when it come to Medicare prescription drug consumption the winner is Miami. The average senior in Miami spent close to 5,000 dollars per year on prescription drugs, many in high risk category in national averages about half that there are couple of reasons according to Dr. Jeffrey Munson lead author of the Dartmouth report, one reason was simply that Miami has traditionally been a high use region another reason higher percentage of specialist there more likely to prescribe more targeted drug regiments. And want to get little Johnny to sleep better ant night and behave better doing the day it's not in the pills it's in the discipline it seems recent studies in Great Britain showed a direct correlation between later bedtime hours for children and less well behave kids during the days. That's nothing new but what the study did find out was those kids was variable bed times each night feared far worse across the board. So early to bed at same time every night makes a child chipper mindful and bright. I am Marianne O'Hare with this health care headline.

Mark Masselli: We're speaking today with Dr. Dennis Charney, Dean of the Icahn Schools of Medicine at Mount Sinai in New York and President for Academic Affairs. Dr. Charney is a professor of psychiatry in neuroscience and systems therapeutics and he's a world expert on neurobiology in the treatment of mood and anxiety disorders. Dr. Charney has several patens to his name and he's author of over 700 published articles in several books including the neurobiology of mental illness and resilience the science of master in life's greatest challenges. Dr. Charney is a former scientific director at the National Institute of mental health and a member of the institute of medicine of the national academy of science. Dr. Charney welcome to conversation on health care.

Dr. Charney: I'm happy to join you today.

Mark Masselli: Well the Affordable Care Act has been keeping you and your organization quite busy, the Mount Sinai health systems in New York City recently going under a significant transformation including the creation about affordable care organization you've also been thinking hard about training that next generation of health care professionals as a necessary approach to preparing your organization in the country for its future challenges. Tell us about your vision for the redesigned health care system in the age of the Affordable Care Act coupled with significant technological advances?

Dr. Charney: I'm happy to. As you may know about two weeks ago we concluded an agreement to emerge with the continuum health partner's system to form the Mount Sinai health system. Which now consist of seven hospitals, a large ambulatory care

network associated with a single medical school and that's the Icahn school of Medicine at Mount Sinai. The Health care system will be responsible for two and a half million outpatient visits almost 40% of the discharges in Manhattan here. And it allows us to develop new methods innovative methods of delivering outstanding health care to a large population, in other words population management of health. Which is a key component of the Affordable Care Act, and as you mention we also have an Accountable Care Organization an A C O which looks almost like an experimental way in the beginning to determine how can we lower the cost of health care while improving quality. And so, through these two processes one is now having one of the largest health care systems in the nation with a single medical school and the ACO we're developing noble methods to deliver health care.

Margaret Flinter: Well Dr. Charney, it certainly sounds like you are breaking some new ground and breaking it in a very big and significant way. And I'd like to ask about the work that you're doing with assembling data for population management I understand that you're investing significantly in a Data Hub that you've hired the original or one of the original data scientist from Facebook and a growing team to figure this out and at the sometime also are building a biobank at Mount Sinai where genetic information can be stored and then incorporate into a data stream to get better insight into effective treatments and I imagine personalized treatment as well. Maybe you could share with us, you have so much going on simultaneously where are you in the process of setting up these massive data infrastructure and when do you think you'll begin to see impact either on teaching or patient outcomes.

Dr. Charney: So, all those these are happening here at Mount Sinai. One of the key elements of being able to provide great care in a large health care system is that you must be data driven so that you know what practice relate to patient wellness what practice relate to readmission. And how do you create an approach to wellness and primary care that ultimately enhances to help of your community. In order to be able do that you need to have expertise and what is now called Big Data analytics and how that might relate to delivering health care. So, we've been investing a lot in that area as you allude to. Eric Schadt is the head of our Department of Genomics and Multiscale Biology, he is one of the pioneers in Big Data analytics and he helped us recruit Jeff Hammerbacher who you alluded to -- who used to work for Facebook and helped develop the large data analytic platform for Facebook and Jeff Hammerbacher who is now an assistant professor here and is working with Eric Schadt's teams, has decided to take his skills that he developed at Facebook and devote that to biomedical research and health care delivery.

In order to accomplish this we've had to invest a lot in high performance computing system and, apparently when you invest enough you can name your computer. So, we have a computer and now it's called Minerva which is the goddess of wisdom. And that computer is the infrastructure that is required to analyze a really enormous amounts of data from our electronic medical record, from our genomics program, imaging program, and to especially put it all together and help us make ultimately clinical decision for the better for our patients and -- I'll just give you one example of how that actually works.

As many of you listeners may know, the ability to sequence the human genome has gone down enormously in course so that shortly the cause of sequencing one's genetics will be at the level of the lab test. In order to make that work in delivering health care we now take genomic data we put it together with one's clinical data and so that at the point of care our doctors can now be -- have information that enables them to make decisions based on the patient's genetics in terms of what drugs they are given to at the best outcomes.

Mark Masselli: Well that is exciting and I certainly would like to talk a little more about Big Data and what is good actionable data for clinicians. But first and we've heard from a lot of folks who've come on our show about the difficulty of dealing with the silos in health care. And it's taking a long time to build them and deconstructing the system while continuing to deliver care can be a real challenge sort of the proverbial flying in the jet and changing out the engines at the same time. And you are not only breaking down Silos within your system, you're also partnering with some exciting external partners like Rensselaer Polytechnic Institute to seek outside assistance and system transformation. So how are you achieving this transformation on such a large scale while Mount Sinai continues to treat 2.5 millions outpatient visits 40%of the discharges in Manhattan that's a lot balls to keep up in New York -- tell us how you're doing that?

Dr. Charney: Well, you know, first -- in analyzing you know whether or not the merger continuum health partners system may tends to -- you know, we spent about a year in developing plans to integrate the systems and determine that you had to achieve excellence throughout a seven hospital system. And so, even though we only recently actually merged the planning had been going on, you know, for a year and just like you said we had to continue to deliver outstanding care while we merge the systems. So, we had figured out ways how to do that, we have had lots of meetings the leaders of our different departments and institutes and ultimately what we're going to develop is clinical centers of excellence throughout the Mount Sinai health care system, such as diabetes, HIV, pulmonary disease and primary care. And in fact one of the key ingredients with achieving wellness in the population is to have a very strong primary care of network. So all these initiatives began before we completed the merger and now we are hitting the ground running to literally change heath care in Manhattan and around the rest of New York City and the tri state area.

We are also investing a lot in innovation and that's where the partnership with Rensselaer Polytechnic Institute comes in. More and more digital medicine is going to be important in how we deliver health care so, that more care can happen literally in the home and not in the hospital or outpatient clinic or doctors office or in the hospitals itself. And we can do that because of the advances in digital medicine it allows us to take blood pressure and measure glucose levels and to do EKGs literally in the home. We can communicate in a very robust way with our patients, you know, while they're in the home setting and so that offers a lot of advantages because literally what's important about achieving health is being healthy in your community your -- in your home. So, we're going to take advantage impart with our partnership with RPI which is

-- has a lot of expertise in digital health to literally have a health care system that starts in one's home.

Margaret Flinter: Well Dr. Charney you're obviously doing a really remarkable work in delivery system redesign and technology advances. But I know that, there is a very core focus also on your mission of training and teaching and training that next generation to be the provider and the scientist and the leaders in this transform system and I understand that you're committing really quite a massive investment two billion dollars towards the plan to thoroughly transform that medical training program to focus on some of these changes to focus on transitional medicine, utilizing the emerging tools in bio-medics and genomics and other technologies as you've describe to create better solutions to treatment in patient care. Maybe you could share with us some about this new training approach how you're doing that, and I wonder if also -- although the focus here I think it's on your medical training and I know you're there in New York with the Macy Foundation and have the same push for inter collaborative professional practices and education that all institutions are trying to achieve. So maybe share with us a little bit about that training mission.

Dr. Charney: Yeah as you mentioned we are in the middle of implementing a two billion dollars plus strategic plan that goes from conducting very basic research that ultimately we hope only to cures for a serious medical diseases through the kind of care we currently deliver to patient. And so, it's -- in a sense delivering care now and discovering care for the future is part of our strategic plan. And the ultimate goal of this strategic plan is to make discoveries that change the way medicine is practice whether it through novel approaches to digital health as I mentioned or the discovering of new medicines for cancer or heart diseases or a serious mental illness or new medical or a surgical devices to improve surgical outcomes. That's all part of our plan to achieve that though we have to be training literally the best and the brightest medical students graduates students and other trainees.

And we want to have a culture of entrepreneurship that our students think out of the box almost like a Silicon Valley approach to a training and discovery. So, in order to do that we have revamp our medical training curriculum and even the way we admits student to our medical school. We are actively recruiting medical students from disciplines that typically have not thought of going to medical schools like students with expertise in computer science and mathematics engineering and physics, we are teaching our students how to be entrepreneur and innovative and literally think that they can change, you know, medicine early in their career. So, what that's done is a lead to a culture of you know excitement and innovation here at Mount Sinai starting with our students and ending with the patient's experience.

Mark Masselli: We're speaking today with Dr. Dennis Charney, Dean of the Icahn School of Medicine at Mount Sinai in New York and President for Academic Affairs. Dr. Charney is a world expert on neurobiology in the treatment of mood and anxiety disorders and overseas one of the largest collections of national institute of health studies among the nation's medical schools. Dr. Charney significant focus of your work

is in conducting research in your specific area of expertise is in psychiatry and neuropharmacology. But you seem to have a dysfunctional patient In Washington that is impacting everyone's health the sequester obviously had an enormous impact on the NIH budget and to the shut down completely. Tell us first of all about some of the exciting research that you are doing but also the impact on the lack of adequate funding fir NIH and the shutdown is having on your larger plans.

Dr. Charney: Yeah, you know it was Dickens wrote this it's the best in times and the worst of times. It's the best of time in that we've never had so many tools to discover the causes of serious medical diseases and based on that to develop new treatments. We're making rapid progress in discovering new approaches to the treatment of cancer now it's becoming more of a chronic disease with certain cancer. In mental illnesses our scientist have discovered a new approaches for the treatment of depression and are working very hard at developing better treatments for serious diseases early in life like autism and late in life like Alzheimer's disease or a micro-biologist have discovered a new methods to develop a universal flu of vaccine so, you won't have to get a flu shot ultimately every year but may be every you know, ten years.

There's just so many you know, exciting things now happening but the problem is that we're not getting the funding we need to accomplish what we know we can now accomplish. The sequester resulted in it you know, literally a decrease in NIH funding in real dollars and when you take into account inflations it was a substantial decrease and the nation's health depends on research funded by the NIH and with the shut down and the government all new applications stop being evaluated. And so we're making zero progress and its very important for your listeners to make contact with their representatives to get them to fund the NIH The National Science Foundation so, that we can achieve the potential that we currently have and that is to change medicine and the practice of medicine in a very rapid way like never before.

Margaret Flinter: Dr. Charney I know you're your own personal clinical and scholarly and research focus has been in the fields of psychiatry and neuroscience. You've written extensively on the subject and authored many seminar works including the neurobiology of mental illness and last year's critically acclaimed resilience the science of mastering life's greatest challenges aimed at the general population. I think there is a increase understanding in the population both on the impact and the outcomes of adverse childhood events and certainly with our returning veterans from the wars of the affects of post traumatic stress disorder on people's life I wonder if you could share with our listeners what you see as breakthroughs in these areas of dealing with problems like post traumatic stress disorder?

Dr. Charney: Yeah thank you for saying that the -- my own research has focused on discovering new treatments for depression and anxiety disorders. And in addition and more recently over the past ten years or so with a colleague Steven Southwick from Yale university we have been studying resilience and that is the ability to overcome a serious traumas in one's life that we all experience it at some point and to literally experience a growth from overcoming a challenges. And the way we study that is we

identified people who were resilient who had overcome very difficult things in their life, we studied prisoners of war, victims of earthquakes in Pakistan and poverty and abuse in the intercity, women who had overcome the ravages of rape and through all that work and literally interviewing and getting to know hundreds of people we develop what we consider a bit of a prescription or a road map to become a more resilient person. And we have also come to the conclusion that anybody can become more resilient we're all going to face loss of a loved one so, that's going to happen and so you want to develop the psychological tool box to be able to handle those stress in your life and that's been the results of our work on resilience to develop up prescription for resilience so that you can literally train yourself to become a more resilient person.

Mark Masselli: Well Dr. Charney you have a conference coming up the second annual Sinai Innovations Conference that will focus entirely on emerging notion of team science not just in health care but across all the disciplines and you have a pre -- a great and diverse panel of experts attending from health care technology art, sport I believe you have a Yankee's manager Joe Torre is participating veteran Yankee manager Joe Torre is participating. Tell us about the -- this new approach to team science in the impact it's poised to have on the future of health care.

Dr. Charney: You know it's -- so we're **(23:32 Inaudible)** a village to accomplish great things and that certainly now true in biomedical research in innovation and health care delivery you can't do it by yourself you literally can't make major discoveries in a single web any more you need teams of people working together to make discoveries that make a difference. Geneticist need to work with biologist the biologist need to work with physician scientist and physician scientist need to work with clinicians so you do have to work to really make fundamental progress you need to function as a great group where you synergize. And one of the reasons we ask Joe Torre to participate is you know he did win four World Championships with the Yankees.

Margaret Flinter: Right it's a good reason.

Dr. Charney: We hope that happen -- starts happening again, you know, with the Yanks and we, you know, we thought we can get advice from, you know, other areas in how they -- you bring people together to achieve greatness.

Margaret Flinter: We are speaking today with Dr. Dennis Charney, Dean of the Icahn Schools of Medicine at Mount Sinai in New York and President for Academic Affairs at the Mount Sinai School of Medicine. You can learn more about his work by going to mountsinai.org, Dr. Charney thank you so much for joining us on Conversation on Health Care today.

Dr. Charney: You're welcome.

(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 US politics. Lori, what have you got for us this week?

Lori Robertson: Well the medical device excise tax that's part of the Affordable Care Act got some attention recently. A day after the house of representative voted to repeal it as part of the budget resolution. House Speaker John Boehner said that the medical device tax quote is costing us tens of thousands of job that are been shift overseas. The excise tax is 2.3% and falls on clinical medical devices, things like CAT scan machines, stents and other devices -- both the hospitals and health providers it doesn't apply to consumer devices purchase directly by the public. The tax went into effect in January of these years and since businesses can deduct excise taxes the net effect is about 1.5% as estimated by Moodys. It's true that some companies have announced the elimination of several thousand positions not just in the United States but around the world. But we found no evidence that the number has reach the tens of thousands as Boehner said or that all those jobs are going overseas. The Republican National Committee and a lobbying group called **(26:15 inaudible)** have compiled quips of medical device companies announcing job elimination. The list show twelve company's announcing the elimination of at most 8725 positions most companies didn't blame the reduction entirely on the medical device tax and a few made no mention of the tax at all. Medical device companies are also making large investment overseas but those are driven in large part by grows in emerging markets including China, India, Brazil and Russia. The repeal of the tax was not part of the final legislation that ended the government shutdown and that's my FactCheck for these weeks 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'd liked checked, email us at CHCradio.com we'll have FactCheck.org's Lori Robertson check it out for you here on Conversations on Health Care.

(Music)

Margaret Flinter: Each week conversations highlight's a bright idea about how to make wellness a part of our communities and to everyday lives. Walking sound simple but it's tricky business when you've lost a limb and with the proliferation by IED explosions in our recent wars in Iraq and Afghanistan we seen the devastating effects of these injuries too frequently. But all of these amputees have spurred a new Russian science to build a better prosthetic traditional artificial feet and limbs do a pretty good job of getting amputees on their feet again, but they have limitations and on average amputees take a fall at least once a year because of a lack of proficiency of the artificial limb to function naturally. Scientist at Michigan Tech had developed a computerized

bionic limb that pivots and rotates just like a natural ankle would allowing for better balance while in motion.

Professor Mo Rastgaar: The anchor has it can move more than just to up and to down, and it allows the foot to roll side to side. It allows the wearer to turn more naturally.

Margaret Flinter: Professor Mo Rastgaar lead developer on the team says that would really makes all the difference here's that their bionic limb has computer sensors on the bottom of the foot that alerts the limb to potential changes and gait.

Professor Mo Rastgaar: When we walk the ankle adapts to different train for example if there is a pebble and you walk on top of it the ankle rolls, right? So, if you have the same kind of mechanism in the procedure in the ankle that we have eventually it allows better stability for the amputees it prevents them from falling often.

Margaret Flinter: He teamed up with researches at the male clinic who are helping to refine the processes and test its reliability.

Professor Mo Rastgaar: It has cable so it allows us to move the electrical motors that are in the device to virtually anywhere that we want. This is a good flexibility because it prevents the focusing all the weight in the area of the lost limb. There is a good flexibility in distributing the weight of a device that's a feature that I hope that someone help amputees in order to increase their mobility

Margaret Flinter: A biotic artificial limb that that uses advance micro processor to facilitate more natural walking for amputees improving their safety as well as their dignity and quality of life. Now that's a bright idea

(Music)

Margaret Flinter: This is conversation on health care I'm Margaret Flinter**.**

Mark Masselli: And I'm 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.