

Peter O Neill

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

Margaret Flinter: I'm Margaret Flinter.

Mark Masselli: Well, Margaret we find ourselves as a nation once again grappling with another terrible tragedy. Another gunman opened fire this time in a Florida school that mass shooting left 17 people dead mostly students, but also some brave teachers who shielded the fleeing students from the bullets.

Margaret Flinter: Well, Mark all of us in health care have had to look at the gun violence epidemic for what it is and it is a public health crisis. We do risk assessments in our clinical practice to help us understand who may be at risk in their own homes, but we are up against an incredibly formidable foe. There are just too many guns in circulation in this country and they are simply too easy to obtain, this is a daunting problem.

Mark Masselli: After the Sandy Hook shootings our behavioral health clinicians help families grieving through the aftermath of that tragedy. We watched bewildered as nothing changed in Washington in response to Sandy Hook. I think this time the tide may be changing, the teen survivors of the Florida shooting have begun a grassroots movement to promote rational gun laws.

Margaret Flinter: Well, Mark I don't think anyone in the country can fail to be moved by those kids standing up and saying no more, we need to do something about this. We have to do better as health care providers to say nothing of as a nation as a whole. It's going to take some innovative approaches, it's going to take some legislative approaches and it's going to take some serious political will.

Mark Masselli: Speaking of innovations it's something our guest today is fully engaged in Peter O'Neill is Executive Director of Cleveland Clinic Innovations dedicated to getting their breakthrough technologies to the marketplace.

Margaret Flinter: Lori Robertson of course will be checking in with us, the managing editor of FactCheck.org.

Mark Masselli: No matter what the topic you can hear all of our shows by going to chcradio.com. As always if you have comments please email us at chcradio@chc1.com or find us on Facebook or Twitter.

Margaret Flinter: We'll get to our interview with Peter O'Neill of the Cleveland Clinic Innovations in just a moment.

Mark Masselli: First here's our producer Marianne O'Hare with this week's headline news.

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Marianne O'Hare: I'm Marianne O'Hare with these health care headlines. The Department of Health and Human Services issued a proposed rule on short term health insurance plans for those in the insurance marketplace allowing for short term plans that can be purchased for up to 12 months, but they're not required to cover much of what is required by the Affordable Care Act, not the so-

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called 10 Essential Benefits not preexisting conditions or maternity care, preventive care or prescription drug benefits. Even analysis from HHS shows that plans such as these which might appeal to younger healthier people would likely take them out of the insurance marketplace pool leading to higher premiums for those who remain in the marketplaces created under the Affordable Care Act. Insurance industry experts caution this move will serve to further destabilize the insurance marketplace and impact the medically and financially vulnerable the most. The rule is open for comments.

There's been a tsunami of comments about guns, violence and public health and so latest mass shooting at an American school. The tide may be turning on the topic, the president and members of the GOP are responding to a rising tide of criticism over a lack of action on gun control in the wake of the epidemic of gun violence in this country. Some gun control measures on the table increased background checks also mounting pressure on state and federal lawmakers to take action on the matter. Meanwhile, students seem to be taking the lead, they convened a large group in Florida state capital Tallahassee to advocate for stricter gun controls, they were also planning a big march, March 24th against gun violence across the country.

Turning the tide the flu season seems to have plateaued in recent weeks, numbers from the Centers for Disease Control and Prevention show that visits to the ER and clinicians offices for flu related symptoms has tapered a bit. The CDC saying this year's flu vaccine was about 36% effective against this year's strain of the flu. Adults who got the flu shot had a 36% less likely chance of getting the flu. The effect was more protective in children, about 60% of kids who got the vaccine had a better protective effect against acquiring flu. I'm Marianne O'Hare with these health care headlines.

Mark Masselli: We're speaking today with Peter O'Neill Executive Director of the Cleveland Clinic Innovations the commercialization arm of the Cleveland Clinic whose mission is to bring technological breakthroughs being developed by clinicians into the health care marketplace. Founded in 2000 Cleveland Clinic Innovations has already brought hundreds of products to the health care marketplace. Mr. O'Neill has been with CCI for 10 years, previously serving as Senior Commercialization Officer. He earned his BS in aeronautical science at MIT. Pete welcome to Conversations on Health Care.

Peter O'Neill: Thank you for having me and that kind introduction.

Mark Masselli: Wonder if you could share with our listeners more about the mission at Cleveland Clinic Innovations and how it's designed to interface with the Cleveland Clinic health systems to bring these innovations from the bench to bedside more easily.

Peter O'Neill: The members of the innovations team we are employees of the health system. We don't treat patients directly, like every employee of the Cleveland Clinic we think of ourselves as caregivers. The way we think about that is we help patients by working with our inventors to translate their ideas into products that help patients. Our highest level mission is ultimately about helping patients. We do work with Cleveland Clinic employees throughout the health system, mostly the employees here in Cleveland but it does include employees in Florida, Las Vegas, Abu Dhabi and soon to be London. Most of our innovations come from our doctors, but we also receive many inventions from nurses, researchers, people that work in facilities, people that work on our IT

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technology projects so really open to working with caregivers all across the system. You mentioned that marketplace you know that is a real emphasis for us is bringing products to the marketplace.

Margaret Flinter: Well, Pete -- reminded listening to you of our interview with the just retired Cleveland Clinic CEO Dr Toby Cosgrove. He talked about the Cleveland Clinic's philosophy about innovation. I remember him saying every clinician should have an opportunity to promote their potentially disruptive ideas in health care and health care delivery. I know that the Cleveland Clinic Innovations has already launched hundreds of patents into the marketplace. I think our listeners would be really fascinated to hear about some of the more notable products that have been developed at CCI that maybe we now think of as just part of the larger landscape.

Peter O'Neill: Well you mentioned Toby who is not only a great leader of the Cleveland Clinic, he also happens to be the most prolific inventor in our history. He was a world renowned cardiovascular surgeon and was instrumental in bringing a number of heart valves to the marketplace that have been used and achieved more than a hundred thousand patients today. Toby on his own but also through his leadership role is part of promoting that innovative culture at the Cleveland Clinic. Many of our inventions are captured in companies, recently one of our companies Cleveland Heart Lab was recently acquired by Quest Diagnostics and the technologies in that company are being used to build a Center for Cardiovascular Inflammation Diagnostics here in Cleveland. We're proud of both the technical and market impact of that but also there's the regional economic impact of that of Cleveland Heart Lab. Intellects or another one of our companies was that was acquired did some pioneering work in deep brain stimulation. We also have technologies from others of our caregivers. Right now one of our more interesting projects we're working on was developed by one of our nurses recognize that in the operating room doctors have many layers of non-breathable protective gowns that they wear, it's hot. The doctors and some of the surgeons can be doing a surgery for many hours, so she developed a cooling vest to help these surgeons get through their procedure and to stay as focused as possible on their patients. As you said we've got hundreds of products that have gotten to the marketplace from our caregivers.

Mark Masselli: Pete we were reading health care informatics and noted that Cleveland is the next hot spot to watch for innovation in the health care space. Most folks usually think of Silicon Valley when they're considering where the restructuring is coming from. I'm wondering if you could talk about the unique approach at CCI that is helping put Cleveland on the map. I have a good friend who's a CEO of a genomic Company down in Stanford near New York and he tells me that he can't get any Google engineers to travel north of Chelsea's market in Manhattan. Tell us how you're able to get folks to come to Cleveland or are you bringing some folks in virtually as well?

Peter O'Neill: I do think an ingredient of what Cleveland and Cleveland Clinic bring is a very collaborative perspective on business. We frequently interact with companies that want to connect with the thought leading clinicians here at the Cleveland Clinic. Cleveland Clinic we're all employees it's a single group practice as a result we have tremendous access to large amounts of data. Another role that Cleveland Clinic Innovations is collaborations that helped facilitate access to that data. I've personally been involved in some work where people were able to go back into those data sets and do some data mining and effectively do some retrospective studies in a very, very cost efficient kind

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of way. I think Cleveland is sometimes underappreciated for its pipeline of talent and we think very well of the universities that are here in town and have great connection to them as sources of talent.

I saw the CEO of Exploris which was another one of our companies acquired it was acquired by IBM. He talked about being in Cleveland as a real asset because of the access to talent, you can't talk about being here without the comparison of the Silicon Valley without at least mentioning cost. When you're starting a company you know heck even companies I think you mentioned Google I mean even Google their salary costs are non-trivial and the salaries and other costs of doing business here in Cleveland are just that much less than places like Boston and San Francisco. An early stage or any entrepreneur has make a mistake if they don't at least consider growing their business in Cleveland.

Margaret Flinter: I want to talk about this continuum of ideas to cost and I think we couldn't agree with you more the people closest to the patients are likely to be the most inspired. It's incredible to have an incubator to actually take things to the point where they're in the market or at the bedside or in the home of the patient wherever. You need a pretty robust infrastructure for capital investment, product development, how does your venture division work to support all this innovation work? It's a unusual model.

Peter O'Neill: We could very easily and quickly decide that we're going to form a company, instead we do a lot of very rigorous internal diligence to challenge whether an opportunity should have a spinoff company. We've had some very successful projects, I mean I mentioned Dr. Cosgrove's valves, I mean those were those were done through a direct license and not through a startup. I think step one is to be rigorous about deciding to start companies at all. With regard to funding, the way we think of it is de-risking. We have funding that we apply in the sort of five to 50,000 dollar range to do some early stage prototyping. If a project achieves the right kind of success there then we have some different sources of funding, so maybe 500,000 dollars range and then we have the ability to access millions of dollars. We recognize that not all projects are going to be successful so we -- I think the expression is fail fast. That's why we designed our prototyping and other early stage projects to give us that decisive answer about whether a project is going to be successful in the marketplace.

Mark Masselli: We're speaking today with Peter O'Neill Executive Director of Cleveland Clinic Innovations the commercialization arm of the Cleveland Clinic whose mission is to bring technological breakthroughs being developed by its clinicians into the health marketplace. Pete you've not only focused on product development within your own organization, the Cleveland Clinic also puts out a list every year of the top 10 products or technologies that are bound to disrupt health care. I'm sure all of our listeners are interested in hearing what your predictions were for 2018 and also the process that you go about in picking those top 10 health care breakthroughs each year.

Peter O'Neill: We do something on the order of 200 interviews, most of those are with Cleveland Clinic employees. We're always interested in the perspectives of the marketplace. That lead to about 110 ideas, discussed every one of those ideas in detail. It's an impressive process and every year I'm a credibly appreciative of the time and investment and energy that are at our caregivers give us the support that project. I think you asked about predictions for 2018.

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Mark Masselli: Everybody loves predictions.

Peter O'Neill: I think last year there were a couple of projects that were concluded we're not quite ready. We look for projects that are going to have impact within the next calendar year, so sometimes we say hey, this is maybe a year or two away. Some of the projects in remote health management and artificial intelligence are on our radar. There's a balance between waiting too long and feeling like oh it's yesterday's news versus saying it too early but those are definitely innovations that we're keeping track of.

Margaret Flinter: Pete, moving beyond Cleveland and even the United States we've been watching the degree to which the Cleveland Clinic is casting its influence all around the world, opening institutions in Canada, in the UK, Abu Dhabi. This also goes back to our conversation with Toby Cosgrove it was clear it was not just about bricks and mortar but also about really bringing the model of care. The health care delivery model to communities to provide better health care for people and raise the bar in health care overall. Also about expanding maybe some of the telehealth protocols and using these international hubs as a way to improve clinician training around the country. How do you think all of that work around the world is going to have an impact back at home at Cleveland Clinic Innovations?

Peter O'Neill: The US health care market is obviously a huge part of the worldwide market if not the whole market, and so we very much appreciate our ability through our foreign hospitals to get direct insights into the way other parts of the world deliver health care. As we think about the types of technologies that can be embraced here in the United States and other places in the world, we bring those additional perspectives to help us evaluate technology. Historically we've evaluated technologies on sort of three criteria patentability, market size, clinical effectiveness. A fourth and growing influence for us is value, and I think some of foreign markets have some really strong ways of delivering value lower cost solutions for their patients. We recently established collaboration with the Silicon Valley base accelerator Plug and play, they're going to be opening an office here in Cleveland. That is a direct benefit to us is to getting Plug and play's global network of viewing startups in all different kinds of parts of health care, delivering filtered list of those companies to us to look at. We're really excited about that, that's an exciting way for us to continue to have a worldwide reach.

Mark Masselli: Pete that also picks up on the collaboration that we've talked about on the show before with Apple Stanford Health and American well a sort of a first of its kind the health arrhythmia study looking to use Apple Watch users and scale up that research. This seems to me emerging trend, I'm wondering how you think this will be helpful in bringing disruptive health technologies to the marketplace sooner?

Peter O'Neill: I do and you mention that moving away from bricks and mortar and you think about companies like Apple, Google, Amazon, Microsoft, IBM these are all companies that have successfully disrupted other markets, they're looking at health care. Seems like almost every week I see some story about some nontraditional health care company getting involved in health care. We collaborate with lots of those companies and that's exciting for us because we know that's a necessary direction for health care costs, value, convenience, patients. Cleveland Clinic's main

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campus is amazing but a patient if they can stay home and get diagnosed at home that's still better. When you talk about managing the wellness of patients that really should be done in a remote setting, and so yes all of this – you use the disruption and you nailed it. That's exactly what's coming and I think those kinds of companies are -- that's exactly why we enjoy working with them.

Margaret Flinter: We've been speaking today with Peter O'Neill Executive Director of Cleveland Clinic Innovations the commercialization arm of the Cleveland Clinic whose mission is to bring technological breakthroughs being developed by its clinicians into the health care market. You can learn more about their work by going to ClevelandClinic.org or follow them on Twitter @ClevelandClinic. Pete thank you so much for joining us on Conversations on Health Care today.

Peter O'Neill: Thank you both 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 non-partisan, 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: President Donald Trump distorted the facts about a protest in the United Kingdom regarding the universal health care system there. Trump tweeted that while democrats are pushing for universal health care quote, "Thousands of people are marching in the UK because their system is going broke and not working." The London demonstrators marched in support of the system and urge the government to better fund it. The United Kingdom's National Health Service is a single payer system, the government pays for health care which is free at the point of service with the exception of some prescription eye care or dental cost and funded through taxes. Trump's tweet suggests the demonstrating were opposed to that universal health care system, that's not accurate. BBC reported that thousands demonstrated in London on February third quote calling for more government support for the NHS. The groups behind the rally put out a joint statement responding to Trump's tweet, they said the demonstrators wanted quote, "To show their love for the principles of universal and comprehensive care free at the point of use."

They were protesting they said against British government policies they view as trying to quote. "Move us more to an American style system." In February the New York Times wrote about budgetary austerity in the UK that had limited the growth of health spending to below the historical norm. As a result patients can wait months for procedures though public satisfaction with NHS remains high. The protestors in the UK carried signs that read more staff more beds more fun and save our NHS. As for democrats in the US some are pushing for universal health care. Senator Bernie Sanders introduced a Medicare for All Act last fall co-sponsored by 16 democrats and a majority of house democrats were co-sponsors of a Medicare for All bill in that chamber last year. That's my fact check for this week, I'm Lori Robertson Managing Editor of [Fact Check.org](http://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

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you have a fact that you'd like checked, email us at CHCradio.com we'll have FactCheck.org's, Lori Robertson, check it out for you, here on Conversations on Healthcare.

Mark Masselli: Each week conversations highlights a bright idea about how to make wellness a part of our communities and everyday lives. Pregnancy is normally an exciting time for most women but according to the research an estimated 10% of prenatal women experience some kind of depression during their pregnancy, and many are reluctant to treat their depression with medication for fear of harming the fetus.

Dr. Cynthia Battle: In fact a higher percentage are experiencing lower grade depressive symptoms and left untreated those mild to moderate symptoms can progress in some cases lead to a more serious postpartum depression.

Mark Masselli: Dr Cynthia Battle is a Psychologist at Brown University with the practice at Women's and Infants Hospital in Providence. She and her colleagues decided to test a cohort of pregnant women to see if a targeted prenatal yoga class might have a positive impact on women dealing with prenatal depression.

Dr. Cynthia Battle: It was a typical kind of half a yoga that would include physical postures, breathing exercises, meditation exercises. We enrolled 34 women who are pregnant and we measured their change in depressive symptoms over that period of time.

Mark Masselli: Not only were women able to manage their depressive incidents they also bonded with other pregnant women during the program and found additional support from their group.

Dr. Cynthia Battle: We found that women on average were reporting that they were reporting much less. Women who are depressed during pregnancy unfortunately do often have less ideal birth outcomes. One thing we're interested in seeing is when we provide prenatal yoga program can it improves mood and then can we even see some positive effects in terms of the birth outcome.

Mark Masselli: A guided non-medical yoga exercise program designed to assist pregnant women through depression symptoms. Helping them successfully navigate those symptoms without medication, ensuring a safer pregnancy and a healthier outcome for mother and baby. Now that's a bright idea.

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Margaret Flinter: This is Conversations on Health Care I'm Margaret Flinter.

Mark Masselli: I'm Mark Masselli, peace and health.

Conversations on Health Care broadcast from WESU at Wesleyan University, streaming live at www.wesufm.org and brought to you by the Community Health Center.