Dr. Paul Offit

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Female: Welcome to Conversations on Health Care with Mark Masselli and Margaret Flinter, a show where we speak to the top thought leaders in health innovation, health policy, care delivery, and the great minds who are shaping the healthcare of the future.

This week Mark and Margaret speak with Dr. Paul Offit, virology expert, Co-Creator of the Rotavirus Vaccine and Director of the Vaccine Education Center at Children's Hospital of Philadelphia. He's also a member of the FDA Advisory Committee which recommended emergency authorization of the Moderna and Pfizer COVID-19 vaccines, which he calls a remarkable scientific achievement. He says years of research led up to this moment and says it's imperative that we scale up mass inoculations to bring this pandemic under control.

Lori Robertson also checks in, Managing Editor of FactCheck.org looks at misstatements spoken about health policy in the public domain. We end with a bright idea that's improving health and well-being in everyday lives. If you have comments, please e-mail us at chcradio@chc1.com or find us on Facebook, Twitter, or wherever you listen to podcast. You can also hear us by asking Alexa to play the program. Now stay tuned for our interview with Dr. Paul Offit here on Conversations on Health Care.

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Mark Masselli: We're speaking today with Dr. Paul Offit, Director of Vaccine Education and Professor of Pediatrics in the Division of Infectious Disease at the Children's Hospital of Philadelphia. He's the Maurice Hilleman, Professor of vaccinology at the Perelman School of Medicine at the University of Pennsylvania and is a member of the FDA's Vaccine Advisory Committee, which recently gave emergency approval for both the Pfizer and the Moderna vaccine.

Margaret Flinter: Dr. Offit is an internationally recognized virology expert. He's the co-developer of the rotavirus vaccine for which he received numerous awards and distinctions. He's a founding advisory board member of the Autism Science Foundation and the Foundation for Vaccine Research. He's a member of the National Academy of Medicine, the Editor of the Publication Vaccines. Dr. Offit, we welcome you today to Conversations on Health Care.

Dr. Paul Offit: Thanks for asking me.

Mark Masselli: I think the public knows the story of the virus. It's a year out now. Global deaths are close to 2 million people, more than 350,000 deaths in the United States and growing daily. We're in the midst of a surge upon a surge, a lots of troubling news, but I think there's really some good news in the larger context of two vaccines have been approved.

I think the whole vaccine development story needs to be told because it's really just a remarkable accomplishment. While it took a year, it really happened over a couple of decades that people have been thinking about this. I know on one hand, there are lots of people who were anxious about maybe the term Warp Speed. But this is science at its best and I'm wondering if you could give us an overview of the development story and why it's so vital to bring this pandemic under control.

Dr. Paul Offit: It's a remarkable story. I mean, we only had this virus, the SARS-CoV-2 virus in hand in January of 2020. That's when we knew the sequence of the virus. We knew which protein we were interested in. It's that protein that emanates from the surface of the viruses, so called spike protein, that's the protein responsible for binding two cells, and because we knew the sequence of the virus, we then knew that that piece of Messenger RNA or mRNA that coded for that particular protein.

Then we proceeded to launch a novel vaccine strategy this mRNA vaccine strategy, which although it had been really studied since for about the last 15 years, this is going to be the first vaccine made using Messenger RNA technology. Within 11 months, we've done two large clinical trials, 130,000 big which was the Moderna trial and then 44,000 for the Pfizer trial.

I mean, I think if you'd asked a thousand scientists on this globe, whether in January of 2020 they thought we would have a vaccine that was 95% effective against disease including severe disease, including people over 65 that would be available to the public by November, I don't think you would have found one that would have said that was possible. I think that part of it we've been amazingly good at. The reason it was fast was, one, we spent the money. We spent $24 billion to basically take the risk out of it for pharmaceutical companies. We mass produced the vaccine at risk not knowing whether it was worked or was safe.

We did a lot of the Phase III trials, I mean the government did that, the companies didn't do that. That's why it was so fast, because these things were overlapping. Normally a company will do a Phase III trial to see whether a vaccine works and safe, then they mass produces. They don't mass produce it while they're doing the trials. That's the way this works.

Margaret Flinter: Dr. Offit I wonder if I could ask you to do something for our listeners. We say things like mRNA or Messenger RNA and it kind of rolls off our tongue and we have an idea of what that means. But what we have learned in talking with staff and people in our communities is they hear genetic disruption, changes your DNA. I think the American public has done an amazing job of learning a lot of science throughout

this pandemic. But maybe you could just take a minute or two, explain to people how Messenger RNA technology actually works in this situation in the body.

Dr. Paul Offit: Sure, so we all have Messenger RNA in all of our cells. The DNA in the nucleus of the cell makes Messenger RNA, which is then exported out of the nucleus into the so called cytoplasm of the cell. There, it is translated to a protein, so we all make proteins in our cells all the time to maintain life. There's nothing novel about Messenger RNA as far as our bodies are concerned. We have hundreds of thousands of copies of Messenger RNA. The few copies that are introduced by this vaccine are really fairly trivial compared to what we deal with all the time.

The question that comes up, and you're right, is will this genetically altered? It's a gene, I mean, it's a small gene. Can it then enter the nucleus and somehow transform DNA so that we would then, in some way be harmed? That can't happen, and here's why. First of all, the Messenger RNA is in this little lipid droplet, which is then taken up into the cell in the cytoplasm, then that little lipid droplets sort of uncouth and then the Messenger RNA is naked messenger RNA is now in the cytoplasm.

In order for it to enter the nucleus, it needs to get past the nuclear membrane, which means it needs an access signal, which it doesn't have, therefore, it actually cannot possibly enter the nucleus. Even if it entered the nucleus it's RNA, it's not DNA. It would have to be reverse transcribed to be RNA and which requires the enzyme called reverse transcriptase, which this vaccine also doesn't have. Even if it was reverse transcribed to DNA, it would have to be integrated into the DNA which requires an enzyme called Integrase, which it also doesn't have. It's not like the chances that it could affect our DNA are small, the chances that it could affect our DNA is zero. You are more likely to develop X-ray vision after getting this vaccine than having your DNA altered.

Margaret Flinter: Great.

Mark Masselli: That is a great overview. I was just thinking about how you describe this really, sort of moon launch effort that many governments around the world including the United States playing incredible leadership role, invested $24 billion, engaged scientists around the world, lowered barriers where they needed to be lowered. But I'm thinking now about the distribution of it and it seems we developed a vaccine for all 50 states, right, but we seem to have a state by state maybe local by local strategy on how we're going to distribute the vaccine. Talk to us about this distribution model. Where's it failing? How could it be improved? Lots of people are calling for seven days a week 24 hour vaccine centers. What's your thought about it?

Dr. Paul Offit: Right, I think in order to get this vaccine out there, we need to mass produce it, mass distribute it, and mass administrate it, which requires a public health infrastructure that we currently don't have. We need to put that in place. What we should have done in retrospect is when we were mass producing this vaccine at risk, we also should have been basically coming up with a plan to mass produce distribute and administer it at risk, meaning not knowing whether we were going to have a vaccine. We should have put that plan in place then, because what we're talking about is something we haven't done before, really, which is to say, mass administration, meaning it's not like the flu vaccine where you walk into the pharmacist or the retail pharmacist at your convenience. We need to line people up and give them vaccine after vaccine after vaccine.

In our hospital, we line up. I mean, we vaccinate 12 people every 30 minutes, we have four or five sites where we do that, and we'll vaccinate thousands of people every week to get all of our employees vaccinated. That's just one small example. But it's not easy to do that. I mean, we have a big well resource hospital, which is a pediatric hospital. Although we see certainly patients with COVID, we are not overwhelmed by COVID because we're a pediatric hospital. If you go next door to the hospital the University of Pennsylvania, they're overwhelmed by that, as are many of these hospitals. It's hard for them to shake loose the personnel.

I'll give you another example. I'm in the Commonwealth of Pennsylvania and our Secretary of Health was trying to set this up. She needs to work with the federal government for how to set it up. For example, if she wants to give a vaccine in a sort of pharmacy poor area where it’s sparsely populated, she needs to set up a center where she's giving the vaccine much as you would have a testing center. That requires money to do and it requires personnel to do it. She needs to work with the federal government and say, look here's my plan, what do you think about my plan? Here's how you need to distribute this. Here's how many doses I think I can give a day. But you need to do it in a manner that is sensible.

For example, when you see like, you know people standing in line in Florida for 13 hours who are over 65 years of age, that's not the way to do it. You just have to schedule it in a sensible way. It's not easy. This is not easy to do, and unfortunately we're a little late to get around to doing it.

Margaret Flinter: Well, thanks Dr. Offit for making that so clear. I'm glad to say the state we're in is doing a pretty good job of getting these vaccine efforts underway. But, we kind of climbed the mountain on developing the vaccine which, again, will be one of the great success stories of the century and we're working hard on the distribution piece. Yet, on the

other side, we still are hearing a lot about vaccine hesitancy. Part of why I asked you the earlier question. Let's just keep educating people about what this actually is.

I saw a figure that as many as 30% of clinicians, I think it was in New York City, have declined to take the vaccine right away. This is hugely concerning, from my point of view, but you've said you're not worried, you think this is somewhat short term and as public confidence in it grows and maybe as also people recognize, look, this is in short supply and very valuable that people will put that hesitancy aside and come forward. What are your thoughts on what's likely to happen there? How long is that going to take? Is that going to really slow down our efforts, assuming we solve the distribution issue?

Dr. Paul Offit: I think most people who are concerned about this vaccine are understandably concerned. I mean, here you have a vaccine that was developed within a year, that's remarkably fast. It usually takes 15 to 20 years. The work we did on the rotavirus vaccine took 26 years, so that's more typical. The language that is surrounding this vaccine has been a little frightening, Warp Speed, race for a vaccine, who's going to be the first across the finish line, that's a little disconcerting, and it's a novel technology. It's a scary virus, and it's a novel technology and people tend to rate vaccines as possibly more dangerous. The more dangerous they see the disease, so people will be more scared, for example, of an Anthrax vaccine or an Ebola vaccine than they will of say like a mumps vaccine because they see those other diseases being more frightening. I think that also is scary about this bat coronavirus, that just came made its debut in the human population.

I think that's all fine. I think you should be skeptical of anything you put into your body including vaccines. I consider myself a vaccine skeptic. I think everybody who sits around the table at the FDA Vaccine Advisory Committee meetings is as skeptic, show us the data. But I think what people are concerned about the general population is concerned is about safety. I don't think they think that we're lying to them about efficacy. I think they believe it's effective. I just think they are concerned whether it's safe. As more and more vaccines get out there I think people will be more convincing.

The father of modern vaccines, a man named Maurice Hilleman, who I was fortunate enough to know for 20 years, he was the primary either inventor or developer of 9 of the 14 vaccines we give to children. He said it best. He said, “I never breathe a sigh of relief until the first 3 million doses are out there.” Well, they're out there, so I think people can start to now breathe a sigh of relief that there's no serious rare side effect.

Mark Masselli: What a remarkable career he had. We're speaking today with Dr. Paul Offit, Director of the Vaccine Education Center, Professor of Pediatrics

in the Division of Infectious Disease at Children's Hospital of Philadelphia, co-developer of rotavirus. He is a member of the FDA's Vaccine Advisory Committee, which recently gave emergency approval for both Pfizer and Moderna vaccines.

I was thinking about Margaret was talking about sort of public confidence and building public confidence and there are going to be a lot of things that sort of throw people off and have them worried, and certainly one of them is the new COVID-19 variant both in South Africa and UK, and obviously here now in the United States. You note that the coronavirus has a propensity for mutation. It's kind of interesting to know that they've had the -- I assume that they've done some work on this variant already drawn blood from people who've already been tested. What do you know about its impact or is it just one of those many things that we'll see along the way here of changes that go on but do not impact the efficacy or the effectiveness of the vaccine?

Dr. Paul Offit: It's an RNA virus, therefore it will mutate when it reproduces itself by definition. It will create variants by definition as all RNA viruses do. The question is, does it functionally change? Does that variant created -- cause a -- do those mutational changes cause the virus to function differently? For example, does it cause the virus to be more contagious? Which appears to be true for this so called UK variant, the B-117 variant. Does it cause the virus to be more virulent, meaning more likely to cause severe disease? That doesn't appear to be true for this.

Then most importantly, the thing you would most worry about, has it caused the virus to essentially escape recognition by an immune responses induced by the vaccine? That's not true for the UK variant. Then for the South African variant and the Brazilian variant, they are in the midst of doing those studies, but I frankly would be surprised that this mutated away from the vaccine. I think, I mean, there's -- here is two other RNA viruses as an example. Influenza is an RNA virus. It mutates so much from one year to the next that natural infection or immunization one year doesn't protect you the next year hence the need for a yearly vaccine. Measles is an RNA virus. Measles mutates all the time. Measles creates variants. Nonetheless, we've had a vaccine since 1963 and that virus has never escaped recognition by the vaccine. At least right now, this virus is looking more like measles than it is influenza. I mean, we'll see. You should never make predictions about this virus, I've learned. But at least for now it's all reassuring.

Mark Masselli: Who's doing the research on this right now?

Dr. Paul Offit: A variety of groups across the globe.

Margaret Flinter: Great. Dr. Offit, we're, I think, inundated probably on a daily basis with headlines about COVID and about the vaccine testing seems to have taken a little bit more of a backseat right now. But again, people are getting so much information. In the last week or so, I would say, one of the key things people are now asking is, wait we heard 100%, two doses, two doses, two doses. We've just started hearing, maybe a second dose is not as necessary, maybe the strategy ought to be to hold off on the second dose to get more doses out to people for that first shot in the arm. I wonder if you could comment on that and also a question that I started hearing more in clinical circles is, what about children, do we anticipate at some point including them in the population that should be vaccinated? Maybe those two things the one dose versus two, and what's the state of thinking right now around kids?

Dr. Paul Offit: The second dose gives you a clear dramatic booster response to your first shot. You have much higher titers the virus specific neutralizing antibodies. All the studies that have been done looking to see whether or not this vaccine works have been done with two doses. The notion of giving a single dose and then waiting and hoping that you'll get this the second dose soon enough is a terrible mistake. I mean, it's borne of the notion that when they did these trials, when Pfizer and Moderna did this trial, they gave one dose then if -- Pfizer you waited about three weeks later, Moderna you waited four weeks later to give the second dose. There was a period of time where you could look to see whether or not one dose was in any sense effect.

In the case of Pfizer, it was about 52% effective for a few weeks. In the case of Moderna it was about 80% for a few weeks, but you don't know if it's effective for six weeks or two months. But you do know this, you know that that second dose gives you a huge booster response, and you know that that second dose induces so called T cells, which suggests you're going to have more immunological memory and therefore longer live protection. You know that you only have tested to see whether this vaccine works by giving a two dose vaccine. I mean, everybody knows trial has got a second dose. Giving one dose and then hoping you can get that second dose soon enough is a mistake, because I think it disrupts the program. You're not sure when you're going to get the second dose. If a few months goes by and your immunity fades and you're again at risk of disease, you're going to have a lot of people out there who think they're somewhat protected when they're not, it's a mistake.

The other thing that's been raised which I think is equally a mistake is the notion of two half doses. That was borne of the so called Phase II trials, which are immunogenicity trials where you look at the immune response induced by the vaccine, in this case the Moderna vaccine. The Moderna vaccine is a 100 micrograms of dose one, a 100

micrograms of dose two, but in those immunogenicity trials you saw that for the 50 microgram dose, there was an immune response which was to some extent comparable to the 100 microgram dose. People have raised the notion, well okay let's just give half a dose. First of all we haven't tested half a dose to see whether it works. But more importantly, it assumes that that immune response you're seeing correlates with protection. You don't know that. If you knew that was true, we wouldn't need to do Phase III trials to see whether something works.

I'd say half the vaccines that are currently being given to infants and young children don't have a clear immunological correlate for protection. When Moderna and Pfizer were asked at those FDA Vaccine Advisory Committee meetings, do you have an immunological correlate? Can you say those people who broke through, meaning got the vaccine and still got disease, did they have a lesser immune response? They don't know that yet. I think the notion of using immunity to say, okay we can correlate that with protection is a bad idea.

In terms of children, children need to be vaccinated. I think that any virus that cause suffer, be hospitalized and occasionally die, the children need to be vaccinated. I mean, there are obviously a very small percentage of the deaths in this country, very, very small. But nonetheless, they can develop inflammation of blood vessels, and just sort of multi system disease. They need to be -- we have a hospital which has a number of children with the virus, infected with the virus in our hospital now. But you can't just say, okay, this worked in adults, we'll just do the same thing in children. You need to test in children. Those studies are now being done.

Margaret Flinter: Great.

Mark Masselli: I wonder if you could give us sort of a waterfront overview of vaccine development in terms of what's next. We've had Pfizer and Moderna. We've got AstraZeneca. We've got other groups in various parts of the world, the Chinese, the Indians have developed vaccines, what's it look like from you? Then maybe sort of an insider look on the FDA advisory panel, when do you get information on, you start to receive it sort of general through collegial contacts. I know that there's a formal process that the pharmacy itself, the developers will put the whole package together, but how are you keeping abreast of it? What's it look like that we might see over the next six months?

Dr. Paul Offit: Right. Well, just to answer the second part of that question first. We as FDA advisory committee meeting members will see the data on these vaccines when the company submitted for approval through emergency use authorization. They have essentially a packet that's 80 to a 100 page long, here's our submission for approval through UA

[PH]. Then the FDA goes through all the clinical data and then they also give us a second document. Usually, a couple weeks in advance of our meetings is how we come to know about it.

There are other vaccines out there. The Chinese have an inactivated vaccine, take the virus, grow it up and activate it with a chemical. It's the same way we get the polio, an activated polio vaccine, rabies vaccine, hepatitis A vaccine. It is a well worn technology. They claim 79% efficacy. It would be nice if they actually publish those data so the rest of the world can look at instead of dealing in this kind of science by press release age.

The Russians have a vaccine which is a replication defective human adenovirus five, followed by replication defective human adenoviruses type 26, which is the same strategy actually that second part that Johnson & Johnson is using to make their vaccine. The Russians claim 94% efficacy. It would be nice to see those data at some point.

Johnson & Johnson have been rolling quiet. The hope is that by the end of this month we will see those data, but to date I don't know. AstraZeneca is currently doing a study in the United States, a two dose trial in the United States. When that trial is completed, we will see those data but I can tell you that we're not crazy about what's going on in England where they sort of -- the way they did in England was they had -- they did studies in England with their vaccine, which is a replication defective simian adenovirus given as two doses. In the UK, they had sort of -- between the UK and Brazil they had two different dosing strategies, full dose, full dose versus half dose, full dose. They had two different intervals, one was a month and other was up to three months later. They had two different placebo groups, and then they tried to combine all that into one thing and say, okay it's 70% effective. You can't do it that way. That's not the way you do it.

I think we'll wait for a trial in the United States to see whether this vaccine is what you hope it would be, because the more vaccines the merrier. I mean, I think part of the burden of trying to get a lot of people vaccinated is right now you only have two vaccine companies that are making it. When we vaccinate with flu in the United States every year there are many companies that make a flu vaccine.

Mark Masselli: I want to slip in one additional question here before we wrap up. We have the efficacy side during the trial and then we have the effectiveness about how does it impact all of us. How are you keeping abreast of its effectiveness? What's the process so as we get to millions and millions of Americans over periods of time, we actually are measuring that, how's that process being managed?

Dr. Paul Offit: Hopefully, the CDC is doing those studies. I mean, it's the same way. It's the so called wedge studies, the way the Ebola vaccine trials work. In other words, when there was the Ebola outbreak in West Africa, and there were a couple of vaccines that were then introduced into West Africa, those weren't prospective placebo controlled trials where they got a permission to either have you get vaccine or placebo because Ebola was a killer. What that was, that trial was, was a wedge trial. You just introduced the vaccine, knowing not everybody is going to get it all at once, and then you can retrospectively see who got it and who didn't as you move along and what the effectiveness was. But that's a really good point. The efficacy trials are done under very highly regulated conditions. For vaccine, for example, like Pfizer's vaccine, which has pretty restrictive storage and handling and guidelines in terms of once the vaccines is in a refrigerator it only has five days. Once it's reconstituted, you only have six hours. I mean that in the real world that might play out a little differently than it does during the trial.

Margaret Flinter: We've been speaking today with Dr. Paul Offit, Director of the Vaccine Education Center and Professor of Pediatrics in the Division of Infectious Diseases at the Children's Hospital of Philadelphia. He's also a member of the FDA Vaccine Advisory Committee. Learn more about his work and access his extensive writing on the subject of vaccines at www.paul-offit.com. Follow him on Twitter @DrPaulOffit. Dr. Offit, thank you so much for your groundbreaking work on rotavirus and other vaccines, for your commitment to science and scientific discovery, for being a voice of reason and expertise in these very challenging times. Thank you so much for joining us today on Conversations on Health Care.

Dr. Paul Offit: Thank you for asking 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 healthcare 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: As Coronavirus cases spiked in December states began vaccinating individuals throughout the United States. Let's look at how the vaccines are being administered and what we know about their safety. So far, the Food and Drug Administration has authorized two vaccines, one from Pfizer and BioNTech and another from Moderna. Both require two doses and had an efficacy of 94% or higher in clinical trials. The federal government is distributing doses to states and other jurisdictions based on population. States can make their own

decisions on prioritization, but most are following guidance from the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices, which concluded that the first vaccines should go to the nation's 21 million healthcare personnel and 3 million residents of long term care facilities.

The next prioritized groups include those 75 years of age and older and frontline essential workers. Following that are people between the ages of 65 and 74, anyone younger who has a high risk medical condition, and additional essential workers. All of this means vaccine doses are unlikely to become available to the general public for several more months. As for side effects, trial data show that many people experience pain at the site of injection, fatigue, joint or muscle pain, headache, chills, or fever. These reactions are more likely after the second dose given several weeks after the first and more common and severe in younger people.

After the rollout of the Pfizer BioNTech vaccine, several individuals in Alaska and Britain had serious allergic reactions following receipt of the shot, although all has now recovered. Some allergic reactions are to be expected with any vaccine, although these are typically very rare. The CDC is also investigating and has advised that anyone who has previously experienced anaphylaxis be monitored for a half hour after getting the shot. Everyone else should be monitored for 15 minutes. All administration sites will be set up to treat allergic reactions.

4.8 million vaccine doses had been given in the US as of the morning of January 5th. As for anaphylaxis, the CDC said there had been 21 reported cases among the first 1.9 million doses administered. Both shots are mRNA vaccines and while no mRNA vaccine has ever received FDA approval before this type of vaccine has been studied for years. That's my fact check for this week. I'm 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 like checked e-mail us at www.chcradio.com, we'll 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. People living in Sub-Saharan Africa have tougher odds at overcoming diseases. The problem is not just the lack of access to healthcare providers but once someone is diagnosed with an illness, access to vital life saving

medicine is out of reach for many who are sick simply because they can't afford them.

Gregory Rockson: Africa has some of the highest drug prices in the world, simply because it's a free price in the market. You can take a single medicine and two pharmacies next to each other will sell that same drug at widely different prices.

Margaret Flinter: Gregory Rockson is the founder of mPharma, a nonprofit organization that is seeking to address inequities in drug prices in Africa, and the supply chain that often puts these life saving drugs out of reach of the people who need them. mPharma operates in four African countries. It decided to tackle the problem by redirecting the supply chain that forces small independent pharmacies and clinics to source their own drugs and help offers these entities a chance to outsource their procurement for pharmaceuticals.

Gregory Rockson: We realized that if we could begin to bring together all these independent pharmacies and remove the pressure that they have to face in sourcing their own drugs, we can begin to address the issue of medicine availability and affordability.

Margaret Flinter: Rockson says they helped improve the drug procurement supply chain by collecting data on actual drug sales, which allows healthcare entities to avoid over or under stocking. It reduces their vulnerability to fraud and corruption, which sadly is rampant in direct supply chains in parts of the world.

Gregory Rockson: The beautiful thing about the service that we offer them is that not only are we taking ownership of the supply chain, we're also providing the financing to purchase the inventory. We offer them a simple value proposition, pay only when you dispense the drug to the patient. Beyond having the parts available we actively help them manage their inventory.

Margaret Flinter: Rockson says another important benefit more affordable drug supplies help clinicians better manage patient outcomes. mPharma was a 2019 recipient of the School Foundation's Entrepreneurship Award.

Gregory Rockson: With our focus on bringing down the cost of drugs that there will be a systemic change that even other actors will be forced to reduce their prices.

Margaret Flinter: mPharma a nonprofit entity that utilizes reliable data on drug usage eliminates fraud and waste in the drug supply chains, makes life saving medications more readily available to some of the world's most vulnerable people, improves outcomes and saves money. Now that's a bright idea.

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Mark Masselli: You've been listening to Conversations on Health Care. I'm Mark Masselli.

Margaret Flinter: And I'm Margaret Flinter.

Mark Masselli: Peace and Health

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Female: Conversations on Health Care is recorded at WESU at Wesleyan University, streaming live at www.chcradio.com, iTunes, or wherever you listen to podcast. If you have comments, please e-mail us at www.chcradio@chc1.com or find us on Facebook or Twitter. We love hearing from you. This show is brought to you by the Community Health Center.

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