Dr. William Haseltine

[Music]

Marianne O'Hare: 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 health care of the future.

This week, Mark and Margaret speak with Dr. William Haseltine, scientist, author, entrepreneur, and philanthropist. He's founder and chair of ACCESS Health International, also founder of multiple health tech startups including Human Genome Sciences, and the author of a number of living e-books on COVID-19, including Variants! The Shape-Shifting Challenge of COVID-19. He's calling for increased and more widespread testing for America to get back to business, and warns variants could cause problems for vaccine effectiveness.

Lori Robertson also checks in. Managing Editor of FactCheck.org, looks at misstatements spoken about health policy in the public domain, separating the fake from the facts. And we end with a bright idea that's improving health and wellbeing in everyday lives.

If you have comments, please email us at chcradio@chc1.com, or find us on Facebook, Twitter, or wherever you listen to podcasts. Now, stay tuned for our interview with Dr. William Haseltine here on Conversations on Health Care.

[Music]

Mark Masselli: We're speaking today with Dr. William Haseltine, scientist, author, entrepreneur and philanthropist. He was a professor and researcher at Harvard School of Medicine at the Harvard T.H. Chan School of Public Health, where he founded the cancer and the HIV/AIDS research departments. He is the founder and chair of ACCESS Health International, dedicated to improve health care around the world.

Margaret Flinter: Dr. Haseltine has founded more than a dozen biotech companies, including Human Genome Sciences, written over 200 peer-reviewed papers, and a number of books, most recently on the pandemic, among them a Family Guide to COVID, COVID Commentaries: A Chronicle of a Plague, and his latest release Variants! The Shape-Shifting Challenge of COVID-19. He's been writing a series of articles on the pandemic for Forbes magazine, and Dr. Haseltine, we welcome you back to Conversations on Health Care today.

Dr. Haseltine: Thank you very much for the opportunity.

Mark Masselli: Well, it's great to see you, and you know, we're about a year out since SARS CoV-2 virus came to the United States. It's infected globally tens of millions of people, killing over a million. We're around 450,000 deaths in the United States. And you know, you have really dedicated

your life, work to, sort of unraveling the mysteries of many diseases, but in your latest book Variants, you call this pathogen a shape shifter. And I'm wondering, you know, we're just at this interesting intersection where we're telling everyone we've got a vaccine, a near cure, a couple of vaccines out there. But the novel Coronavirus, I think you shared with us before, was bound to mutate. I think what's on everyone's mind, is this mutation, this new variant, more dangerous, more lethal, or is it something that the current vaccines can manage.

Dr. Haseltine: You know, there's no definitive answer. It's a matter for the future to determine. But there are indications if you look closely. You know, at the beginning of this, everybody was worried but they thought, well, it's not going to change too much. Coronaviruses are pretty stable. They come back every year the same way they have [inaudible 00:03:25], we haven't ever seen much change. I had a different view. I looked at them more like the flu virus, where the cold-causing Coronaviruses come back every year. And the same ones can come back and get you the very next year. Gee, they have some tricks up their sleeve. But most of their tricks were modulating your immune response, so we didn't make a good immune response to that so same guy could come back.

I now realize although that's true, they have another trick up their sleeve, which is to change, and they are real shape-shifters. Eli Lilly [ph] treated patients with a monoclonal antibody. They understandably saw variants that were resistant in the patients they treated. The chilling thing that I saw about that paper is they found antibody resistant variants in the people they hadn't treated, the ones with the placebo. They were there, and that says there's a lot of variations. The second one is something most people didn't pay much attention to, and that is, in March, Europe started being infected widely, and it turned out there was a new variant there. It's called D614G, and people were saying oh, maybe it's a founder effect. It took over every other virus in the world. So if the Wuhan strain is the root of a tree, D614 is the trunk. Everybody's got D614. And it has a very slight advantage. It does a couple of little things to improve how easily it can be transmitted. That was a warning right then that this is not a stable virus.

Now that we know we're starting to look, and the more we look the more we find. We're starting to find new variants that don't look very much like any other variants. The California variant that just popped up is not like the South African, the UK, or the Brazilian variant. So there's a lot of variation. People say it's going to be a race between vaccine, public health measures to tamp this down, you ask me, are these going to escape vaccines? The answer is UK virus does so weekly. The South African and Brazilian viruses do it pretty well with a caveat. You're looking at the best possible time to seek protection

because it's immediately after vaccination. I am going to predict that as the antibody concentrations wane, those differences between the ability of the vaccine to protect the variant is going to become greater and greater and greater, to the point where you'll have no protection at all. And I think that, because these variants are re-infecting the same people that were already infected, that actually is occurring in Brazil, and in South Africa. It's causing a huge pandemic right now in Manaus, Brazil, where 76% of people have already been infected. There's a brand new wave of infections. Remember, these vaccines are directed to one piece of the virus, not the whole, at least most of them. There are few that are killed vaccines, but most of them that you've heard about are just the envelope glycoprotein. So we're coming at protection with not a whole deck of cards.

Margaret Flinter: Yeah.

Dr. Haseltine: Sure, they're aces, but isn't the whole deck.

Margaret Flinter: Yeah.

Dr. Haseltine: And it may be that the seven of spades is as important as the king of diamonds in this game.

Margaret Flinter: Well, it's perhaps a long answer, and a very serious answer, and one that we are really paying attention to. And I look back to when we last spoke with you, it almost seems like another era because no vaccines were available at that time, and now we've distributed just over 30 million vaccines here in America, the Moderna and the Pfizer. We have new candidates coming out. Johnson & Johnson may have just one dose. And we think about that and all the effort that we are pouring into getting those vaccines out there, and I guess I have to ask, it would seem the push should still be get maximum vaccines out there, try and get this elusive herd immunity to the degree that we can anyway. So what's the message of somewhere between hope and inspiration around trying to get as great a percent of the population vaccinated as possible?

Dr. Haseltine: I think the answer is yes, get vaccinated, vaccinate as vigorously as possible, one of the reasons being that the variants are there. The more people are infected, the more variants are going to be popped out. I actually liken this to Proteus the ancient myth, where you grabbed it, in the very act of grabbing it changed its shape. That's what we're actually doing. Our interventions are giving it resistance, so it's changing. We've got to push it down before they get too big. The further we push this down by vaccination, and I should say public health measure, you know, our public health measures are woefully inadequate. There are five countries in the world that have eliminated SARS CoV2, three of those had major infections, Australia, China and Singapore. They virtually have no infections except those that come in

from the outside today. And they didn't have a vaccine.

I hope with a vaccine, widely distributed and taken as much as possible, plus, much more serious mask-wearing, social distancing, lockdowns, quarantines as appropriate, mandatory controlled isolation. Those are the steps others have taken, that we know work. Now I know what America is like, I live here. But if we don't eliminate the virus from our shores, we're going to be contending with this for many years to come. And once we do, we have to help everybody else. Because if you look at those countries I just cited today, I said they eliminated it, they did. But they're not COVID free, because occasionally, a virus sneaks in from outside on a frozen package, on somebody with a long lingering disease, and they have to institute locally that whole process all over again. So control it through public health and vaccination to eliminate this and then go on and help the world eliminate it. It can be done. I have to say I'm not very optimistic that we have the will to do it properly, I think in a position that the net result is going to be an endemic disease, like the flu that comes back to haunt us every winter.

Mark Masselli: Yeah. Well, you're so right about it. It's going to take real leadership, and you were really making the point that it is a global solution that we need to have. We simply can't solve it on our shores, we really have to have a concerted effort. And I'm wondering, you know, since President Biden took over, one of his first official acts was to restore US membership in the World Health Organization, and the WHO formed an organization called COVAX, which is really this global partnership to ensure that poor countries have equal access to the vaccine. Talk about these global efforts. We're all part of this larger pandemic that we have to eliminate all across the globe. What are the efforts to date, and what additional steps does the World Health Organization need to take?

Dr. Haseltine: Well, you know, we have been very successful with smallpox. I mean, that's one of the great miracles of modern science and global organization. Smallpox is eliminated, doesn't exist anymore. Polio doesn't exist, except in very small pockets. And we have the potential of wiping out polio. Why? Because we took a global approach. Every country checked in, most countries agreed, even in war torn areas of the Congo we were partially successful, and maybe will eventually be fully successful. The one thing I have noticed about this pandemic is it's brought the global scientific and medical community together, more than it's ever been, companies and scientists. So globally, we are on the case. Pharmaceutical companies have opened the kimono in a way I've never seen before, showing us what they're doing with drug development, which is another major step that we have to take.

All of these things are extremely positive. What isn't positive is how

cumbersome the international machinery is, the competitive nature of companies that I want my vaccine, and I'm not going to give it to you because my people need it. But you know, if you're a political leader, you can understand that the people in your country demand it, and if the supply is short, it's going to take an exceptional leader to say I'm going to give a good chunk to somebody else. You know, you mentioned how many vaccines, Novavax is coming along, the Chinese vaccines are working, there are two or three of them coming along. India is about to enter a big time. Russia is already there with the Sputnik V. We're going to have many different vaccines, and I think we're going, by the year's end we're going to have production where we can begin to talk about vaccinating 2-3 billion people in the world. That isn't something new by the way. We already do that. I've visited tiny little Indian villages, where it's taken me three or four hours to get to and there's a freezer full of vaccines, and somebody who knows what to do with that vaccine, and they're cheap. They're less than $1 a shot.

Margaret Flinter: Right.

Dr. Haseltine: And I'm very happy to see that we rejoined the WHO. I really like the organizations like CEPI as well as COVAX that are working on this. These are really great organizations that need whatever support we and other countries can give them.

Margaret Flinter: Dr. Haseltine, sort of going from the global to maybe a focus on sort of individuals. We've been very focused on vaccines and also on the acute treatment of people in the hospitals, which you know, since the holidays have just been suffering so much with the influx of people. But in primary care and in practice in the community, we're just seeing this emergence of what people are calling the long-haulers, the people for whom they've transitioned to something like an autoimmune disorder. I know you've been doing a lot of analysis on the pathology of COVID-19 and how it can trigger immune responses in the body. We'd really be interested in hearing some insights from you about what these conditions are that are emerging, what is health care, primary care, ongoing health care really going to be need to be prepared to address in terms of the people who've had COVID and survived, some of whom seem to have had fairly mild cases but now are just not recovering. Maybe you could share your insights about that with us a bit.

Dr. Haseltine: Well, you know, in any war, you count the dead, or you count the wounded. We haven't been counting the wounded, and they are probably about 10 times as many. So if there are 400,000 dead, about 4 million wounded. That's a lot of people. Let me sort of break it down into different segments. There are some people who are immunosuppressed and they get the virus, the virus lingers, not for

weeks, but for months. And when you start toting up how many immunosuppressed people there are, it's a lot of people, cancer survivors, people on drugs for psoriasis, people on drugs for multiple sclerosis, people on drugs for inflammatory bowel disease, and I could go on.

Margaret Flinter: Sure.

Dr. Haseltine: Not to mention older people. We are kind of immunosuppressed when it comes to antibody production to new infectious agents. So there's one population that's continually infected and producing viruses. Then, there are many things that this virus does. One of the nastiest things it does is it inflames our vascular system, not just the venous system, the entire vascular system. But once you have inflamed the arterial and venous system, you've got a problem on your hands, because that leads to all sorts of secondary damage. First of all, it leads to clots, and so one of the symptoms you see is very similar to what you see with a heart-lung machine patient. A lot of micro clots all over the brain, you've brain fog. Anybody who's been on a heart-lung machine is not supposed to make a serious decision for a year. And they have a lot worse clots in their lungs, in their kidneys.

Whereas now, if you look at the neurologists that have been following that, there is damage to some parts of the brain preferentially, as a result, not direct infection they think, but damage to the blood system that's feeding that part of the brain. Right? Then there's some direct damage to the lungs, not just the clots, but the actual damage. The virus can infect some cells in the heart and create myocarditis. It can infect parts of the pancreas and cause diabetes. Some of the events that happen destroy the kidney, you need kidney transplants. Sometimes you've lost a leg. So this is almost an equal opportunity destructor. It can cause multi-organ damage, more than one in one patient.

So it's not surprising that we're seeing people with a very long sequelae. And I think we're going to have to partition the different kinds of things we're seeing a little more carefully for primary care. Because some people have primary diabetic consequences, some will have breathing consequences, some may have cognitive problems. It's not going to be a unitary presentation. And so I think that is something that there're going to have to be textbooks, AI programs, other things developed to help primary care physicians deal with the consequences of this. And as you said, it's pretty serious because it's not that 1% or 2% or 3% that are seriously ill and hospitalized, although they have this problem in spades. It's a much larger population. Some people that have relatively minor symptoms can have long lingering effects. Fatigue is one of the biggest ones. It's a

very serious effect. Fatigue is debilitating as any other kind of disease.

Mark Masselli: We're speaking today with Dr. William Haseltine, scientist, author, entrepreneur and philanthropist. He's Chair of ACCESS Health International. He's also chair of the US-China Healthcare Summit. He's written a series of books on COVID-19, which are updated to reflect the latest scientific discoveries around SARS CoV2. You know, I wanted to pull the thread on your earlier comments that really the development of the COVID-19 vaccine was really a scientific achievement of a lifetime, and then sort of pair that with your earlier statement that you were worried about the longer term effectiveness of each individual vaccine. And now Moderna is working on a booster, so I wanted to get your thoughts on that. But also, are you following the clinical trials? We haven't heard a lot about them. They showed us really the efficacy, and now we're going to look at the effectiveness in the larger population. But I'm still interested in who's monitoring those to give us some data, who in the scientific community is looking at that, and then it sounds like some of the pharmaceutical companies are already believing what you're believing that this is going to be perhaps an annual booster or a new shot being given.

Dr. Haseltine: Let me -- the first thing I would say, I, like you, would like to know what's happened to those early vaccines. What is their antibody level? What is their neutralizing antibody? How many of them have gotten infected? Those are really important questions. If they are infected, what was the infecting strain? We don't know that. And it's high time we got to know it. So I agree with you. You've asked a very important question. Where is the data? Now, going back to the length of efficacy of various vaccines, we're so proud of ourselves in developing a vaccine with a brand new technology in record time. Let me remind people that the record was four months set in 1956 by Maurice Hilleman with an Influenza vaccine. If you want to have a Guinness Book of World Records, you got to have the real record.

Secondly, the winners for developing a vaccine were not the United States, they were the Chinese. They developed killed vaccines months before we had ours. They had a problem; there was no COVID to test in China so they had to rely on other tests. So they were slower in clinical development. Now, what the relative efficacy of all the different vaccines is will only be known when the same vaccines are used in the same populations, because there's mixtures of viruses, demographic, age groups, all sorts of things that depend. I would say one thing for sure, these vaccines are working and it's great news.

Now, next question. How long are they going to last? Well, the only real experience that I know of with Moderna's type vaccines is with Ebola, Zika and RSV, and the answer is pretty clear. Not long, half life, three months, and in fact, it was so short that the company who was

co-developing the RSV vaccine, gave it up. Is that going to be the case here for the mRNA vaccines? Well, there's one data point we have seen which is the relative neutralizing activity in young, older and oldest people. And in the older and oldest, it had a half life of about three months, longer in younger people, which is encouraged. What it will be we don't know until we actually see the data, but again, back to your other question, where is the data?

Now, all the studies we've seen, this fantastic efficacy's at a maximum point of immune response just after the vaccination was ended. Very short. Nobody's looking a year up because the year hasn't passed. Now, antibody levels fall. They all fall, or almost always, and then the question is will the memory kick in? That's everybody's hope. But there is no guarantee. It surely hasn't worked for flu. And so what we see with natural infection is in many people fading immunity and the possibility of re-infection. So, there are a lot of issues that as you say, we need to see some more follow up data.

Who's following that? You know, one of the things I was unhappy with, with the FDA when they were giving emergency use authorization, is they didn't really address those questions properly. Remember, they had emergency use authorization. The FDA now has a real chance to say you're not going to get authorization until you show us exactly what you're going to do for long term follow up. We're not going to let you get real, and we may even pull your EUA if you don't do what we ask. We need this data, get it and give it to us and do it in a really detailed way. As I say, not just what the antibody levels are but what it does with the various strains when you're out, what the strains are that are actually re-infecting those people who were vaccinated, I'd like to have that data. There were people re-infected who were vaccinated. Was their immune response weak, or was it a variant virus? How else was it slipping through? So those are questions I think that your very interesting question caused me to ask.

Margaret Flinter: Well, that sounds like a very good clarion call to the FDA, and we'll probably be hearing more about that. But you know, as you were speaking, I was focusing for a moment on your backdrop there, and the titles Family Guide to COVID, COVID Back to School Guide, and remembering that it was August, which seems like an awfully long time ago, when we talked to you last. It was just before the school year was started, and we're asking what the guidance to families is. And it's been a rough year for kids and families, and we certainly are looking at the mental health data, then we are seeing the academic performance data, the social issues. I mean at the time, I remember you said, you know, look at the data, if there's a low incidence of infection or outbreaks in the community, the kids can probably attend school safely. But we've seen such variation around the country. What would you say to people now about kids being back in school,

teachers being back in school and what they can think of in terms of safety?

Dr. Haseltine: Well, I think there is a couple of things that intersect. First and foremost, what's the level of infection in your community? If you're at the red level, a lot of people are being infected still. And you have to remember, things are declining, but with three times the rate we ever were before, right now, three times rate of infection. We were at the worst before. So we've got a long way to go. That's the first thing to say. But know where your area is. If you're red, don't think about sending your kids to school, except under the most exceptional circumstances, some of which do exist. Okay? The second question is, are teachers going to be vaccinated? Let's hope teachers get vaccinated. Adults are sensitive.

Now, there are a lot of studies that say that kids are about one third as infectable as adults. But there are other studies that say kids have more contacts than adults, maybe three times as many contacts. That doesn't exactly equate, but it is a factor. Other one say, well, you can't really see much infection in schools, the infections that you see in school come from outside the school. There is a variant sort of curveball, and that is two of the variants, the UK and the South African. The data is showing more kids are infected. Proportion of kids that are infected is higher, and the proportion of kids that are getting sick is higher. And I'm talking about sub adolescent kids, not adolescent, sub-adolescent kids and adolescents, as well.

And then there are questions that everybody should properly raise what's the demographics? You were taking a look at the summer, now you're looking in the fall? This is two different groups of people. They're not really the same. You know, these kids are going to school, adults were staying home before they were out there. So maybe these numbers really don't mean anything. I'm afraid they might, because what's driving the increased transmissibility of these variants is their increased infectability. They have an intrinsic ability to more efficiently latch on to the receptor. Why do we think kids are spared? Because they have less receptors. Now you've got a virus that can make better use of the little receptors that are there. So, I think you've got to be very cautious when you're reopening the school.

Now the other thing we have to do that we should talk about a little is major sequence surveillance. We have to know what variants are in our community. The US [inaudible 00:25:31] screens and sequences 5%, we sequence 0.3%. Why? I can't tell you, it was a horrible oversight. Okay? Why were South Africa, and the UK ahead of sequencing. You know, handheld sequencers exist today that you can use on the spot. And out of this nanopore sequencing, you get the answer in hours, very cheaply. So, we should, and I was happy to hear

the head of the CDC say we have to do a heck of a lot more sequencing.

Mark Masselli: Well let me sneak in one last question, because it really relates to, you know, the change of governance that we've had in Washington. President Biden's COVID task force is filled with a lot of very seasoned talents. We have a new CDC director, has a heavy lift in front of her really trying to restore credibility. But it seems like they've taken some things out of your playbook in terms of nationwide public health measures. I think you talk about it as blocking and tackling dramatic improvement in the supply chain. How are you looking at the new administration? What hopeful signs are you seeing? And where do you think they might need a little nudge?

Dr. Haseltine: They have -- I think I can't be more pleased with what they're doing. They have great people who are lifelong dedicated public health servants. They're listening to them. They're allowing them to speak to us. We hear what they have to say. I like what they're saying. They have some very good ideas. They know what to do. We have a problem in America. You can only lead people who want to follow, right? If the kids didn't want to follow that Pied Piper, they wouldn't have left the town. Well, we have a big bunch of people that don't want to follow, and so there are limits I think, and they feel those limits. Now they have to make a judgment, and you know, I'm not in their shoes, but I would rather see much more emphasis on tougher public health measures.

For example, for travel, I would like to do exactly what the countries that are COVID-free do. Make sure you've taken PCR test and an IgM test before you get on the plane. When you arrive, isolate yourself for two or three weeks. In some countries, you're now isolating for three weeks, because you know that infection can take long, and not just isolate at home, controlled isolate by yourself in a hotel room that's supervised. So you don't have that opportunity to leave. Right? That's what I'd like to see. Now, in addition to that, I'd love to see, flood the country with free self-administered COVID tests so businesses, schools and families can use them. And I'd love to see an incentivized, or if necessary, mandatory isolation for those who are infectious.

Those are the steps we're not hearing about. And if we don't hear about it, we're not going to drive it to zero. We are going to drive it to a low level, we're going to think everything's fine, and we've done it twice before and we know what happens next. Kaboom! That's what I'm afraid of. So I would like -- everything they're doing is right. I'd like them to take it one step further. But I understand there are political realities, and how hard you can push back, or how boldly you can lead people who want to go where no man has gone before.

Margaret Flinter: We've been speaking today with Dr. William Haseltine, scientist,

entrepreneur, author, philanthropist, chair of ACCESS Health International and the author of numerous books, including his latest release Variants! The Shape-Shifting Challenge of COVID-19. You can learn more about his work by going to his website www.williamhaseltine.com, or follow him on Twitter at @WmHaseltine. Dr. Haseltine, we thank you so much for your dedication to solving the mysteries of some of humankind's greatest health challenges, and for finding a way to share your vast knowledge both with the scientific and the clinical community, but also with just folks trying to do the best they can to figure out how to get through this pandemic, stay safe and keep their families safe. Thank you so much for joining us on Conversations on Health Care again.

Dr. Haseltine: Thank you. It's my pleasure.

[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 nonpartisan, nonprofit consumer advocate for voters that aim to reduce the level of deception in U.S. politics. Lori, what have you got for us this week?

Lori Robertson: What do the new Coronavirus variants mean for the pandemic? There is no firm evidence yet that any of the variants of SARS CoV-2 cause more severe disease, or are more lethal. British authorities revealed on January 22 that four analyses indicated there was a 'realistic possibility that the variant that emerged in the United Kingdom could be more lethal', but they cautioned this was based on limited data. However, experts say variants that are more easily spread, can still lead to a large number of deaths. Data indicate that variants first detected in the UK and South Africa may be more contagious. Because of the exponential nature of viral spread, an increase in contagiousness can have a bigger effect on the number of deaths in a population than the same increase in a virus' lethality.

In late December, Colorado officials confirmed the first reported case of COVID-19 in the US due to the variant that emerged in the UK. And in late January, the variant that was first detected in South Africa was reported in two individuals in South Carolina. Scientists expect vaccines for COVID-19 will work against these variants, but they're monitoring the situation. The good news is that should any variant prove to be evading a vaccinated person's immune response, the two COVID-19 vaccines with emergency authorization in the US can be quickly modified. Both use messenger RNA to train the immune system to recognize SARS CoV-2. That can be revised by swapping in a molecule with a slightly different sequence. And that's my fact check for this week. I'm Lori Robertson, Managing Editor of FactCheck.org.

[Music]

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, email us at www.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 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, and the problem is not just the lack of access to health care 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. So 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's 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 help improve the drug procurement supply chain by collecting data on actual drug sales, which allows health care entities to avoid over or under stocking, and 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 products 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 Skoll Foundation's Entrepreneurship Award.

Gregory Rockson: With our focus on bringing down the cost of drugs that there'll 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.

[Music]

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.

[Music]

Marianne O’Hare: Conversations on Health Care is recorded at WESU at Wesleyan University, streaming live at www.chcradio.com, iTunes, or wherever you listen to podcasts. If you have comments, please email 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.

[Music]