TRANSCRIPT OF PROCEEDINGS

BROADBAND HEALTH TECH FORUM:)
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Leveraging the Power of)
Broadband to Address)
Disparities, Drive Health)
Innovation and Spur)
Entrepreneurship)
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Connect2HealthFCC,)
Wayne State University,)
TechTown Detroit)

AFTERNOON SESSION

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TechTown Detroit	)

TechTown Detroit
440 Burroughs Street
Detroit, Michigan

Wednesday,
October 28, 2015

The parties met, pursuant to the notice, at 1:12 p.m.

PARTICIPANTS:

NED STAEBLER, President and CEO, TechTown Detroit

JILL FORD, Special Assistant, Innovation and Entrepreneurship, Mayor's Office

MIGNON CLYBURN, FCC Commissioner

PRIYA GOGOI, Co-Founder and Vice President, Research and Strategy, DeNovo Sciences

JAMES MULLEN, President and Founder, Blood Monitoring Solutions, Inc.

THOMAS SHEHAB, Principal, Arboretum Ventures

M. CHRIS GIBBONS, M.D., M.P.H., Chief Health Innovation Officer, Connect2HealthFCC Task Force

YAHYA SHAIKH, M.D., Connect2HealthFCC Task Force

PAUL RISER, Managing Director, Technology-Based Entrepreneurship, TechTown Detroit

PARTICIPANTS: (Cont'd)

JAMES BEASLEY, Manager, Information Systems Resources; Past Chairman, Detroit Cable Commission

MONIQUE BUTLER, M.D., Chief Medical Officer, Detroit Medical Center, Sinai-Grace Hospital

LORETTA V. BUSH, M.S.A., President and Chief Executive Officer, Institute for Population Health

ERIC FREDERICK, AICP, LEED AP, Executive Director, Connect Michigan

MARC HUDSON, Co-Founder and Chief Executive Officer, Rocket Fiber LLC

PAMELA LEWIS, Senior Program Officer, New Economy Initiative

PATRICK GOSSMAN, Ph.D., Deputy Information Officer, Community, Research and Special Projects, Wayne State University

P R O C E E D I N G S

(1:12 p.m.)

MR. STAEBLER: First of all, thank you, Commissioner. I apologize on a couple of fronts. First of all, I'm not Paul Riser who I think your program says is going to doing the welcome. Paul is our managing director of our host programs here at TechTown.

And secondly, the tech people are still working out technical difficulties over here, so pay no attention to the people at the curtain over there. I'm going to stand over here and distract you while they go back and forth and make the camera happen.

But thank you so much for coming to TechTown, stay for the Broadband Health Forum and the Fireside Chat with Commissioner Clyburn. We're very excited to have the FCC here. We think this is an incredibly important initiative, and it dovetails really nicely with what TechTown does and what TechTown is all about.

People hear "TechTown," and they think, "aha, you commercialize technology, university of health systems," and this is actually absolutely true. We have some great programs that, were Paul here, he would tell you all about because those are his

programs.

But we run a technology accelerator program. We have an incubation program. You can see all the space that we have for about 40 or so companies that live here, everything from Ragnostic on sectors, so everything from biotech to -- there's a biometric gun lock, to a 3D printing company, and really everything in between.

We work with lots of great partners. Some of them are here today, and I'm not going to start pointing them out because I will forget somebody, and then I will get in trouble. But we have great partners in the ecosystem who work on that.

But that's only part of what we do here at TechTown. Because, though we were started 15 years ago really on the technology side of things, hence the name; like I think all good entrepreneurs, we looked at our market and realized that there were some gaps that we needed to fill, and we pivoted a little bit to help work on them.

So we have a whole series of programs that we call blocks, and those blocks are really the recognition that Detroit entrepreneurs have some different needs, and they aren't necessarily all technology-based.

So of the 300 or so companies that we'll work with this year, about half of them won't be technology-based companies. We work in seven neighborhoods around the city, helping entrepreneurs in those neighborhoods to start and to grow businesses. There are SWOTs program, and we run a retail boot camp here every year where we'll help 16 or 17 businesses actually get up and going and start businesses right here in Detroit.

I like to say, often that TechTown is where the stereotype of the young white male entrepreneur goes to die. And if you look around at our clients, you'll understand why I say that. Because 60 percent of them are over the age of 50. About 60 percent are not white, and about 50 percent are not male. We are very representative of the community that we serve, because we think it's really important to make sure that -- if you're going to have a sustained recovery here in the city, that it is inclusive, and that everyone is participating in it.

You can't have a seven-square mile oasis in 140-square mile city and think you're going to have sustained prosperity. We need to make sure that everybody is participating in the recovery.

So that's just a little bit about TechTown

and what we do, and why I think this works really well to have the Commissioner here. And now, I want to introduce somebody from the city who I know shares that sentiment about prosperity across the city, special advisor to Mayor Mike Duggan, Jill Ford.

(Applause.)

MS. FORD: So I'm excited to be here today, having the opportunity to really talk about how we are supporting innovation in the City of Detroit.

I have been a part of thinking in an innovative sort of way and looking at different ways to use technology as a tool to support innovation since the beginning of my career.

I actually started off as a computer programmer. After getting my degree in computer science, I went to a company called Trilogy in Austin, Texas, and loved the enablement that came from being able to take ideas and bring them to life by just thinking what I wanted to create and then being able to code it. And I love how we are now enabling people of all ages to have that kind of strength and talent and skill to be able to take their ideas and bring them to life.

Starting off as a programmer, I then went to business school at Wharton, and had an opportunity to

go and start a company by taking an idea that some students at MIT had been experimenting with: running a business plan competition and giving away funds to companies in Ghana to be able to get those companies to have the opportunity to grow. And then taking that idea and expanding it, and looking at just how big we could actually grow this.

And so, I went to Ghana. We took all those ideas that we wrote down on that little napkin and grew this into a company that supported 500 entrepreneurs coming through, and funded the companies, and really helped to change the global perspective on entrepreneurship and investment opportunities in Ghana.

From there, I took those skills and went into business development and talked about how we could coordinate opportunities from multiple companies together to be able to offer new products and services. And got into bowl games, which is a convergence of video, and sound, and all of these different kinds of elements, all technology-enabled, and all about enabling people to create experiences that are going to touch the lives of people around the globe.

So when we think about technology and the

role that it plays in innovation, it has multiple layers to it. There's definitely the technology product or service, but there's actually companies that some people may not think of as technology companies that are tech-enabled companies. That can be optimized in terms of the operations that they have.

And these companies may be hair salons. They may be restaurants. I mean, think about going into a restaurant and being able to place your order on a tablet. These are innovative ways of integrating technology into companies that may span a wide set of industries.

And so, when we look at the kinds of things that we have the opportunities to do as we are taking a new look at the industries and the kinds of companies that are really going to be able to support this new age in Detroit, we are taking a wide glance at all of these things.

As we've looked at the kinds of needs that companies have had across the small business spectrum, startup companies, we recognize that they fall into tangible categories. Companies need customers, and to get those customers they need talent. They need space. They need to ensure that barriers are as low

as possible to be able to get the business started, when you start thinking about things like permits and licenses, for example, to get businesses started. They need funding so that they can get to all of those different kinds of things.

And so, we've been going after those one by one, which the most creative and innovative approaches that we can think. We rolled out the Motor City Match Competition, which is a first-of-its-kind competition that matches the best properties from across Detroit and the best entrepreneurs from around Detroit and the world. We are very fortunate to have partners from foundations as well as federal funding to be able to creatively support this competition. And every quarter, we are putting $500,000 into Detroit-based businesses.

Now, we see this as a way to support our entrepreneurs. We also see it as a way to really invigorate the revitalization of Detroit, by strategically clustering activated companies in commercial spaces. In Detroit, which is very geographically distributed, we have had significant sets of buildings that have not been occupied for long periods of time.

And by having the Motor City Match Program,

we have an opportunity now to activate these vacant commercial spaces by placing extraordinary companies into these spaces that will then attract other companies. And that will increase the foot traffic. And by doing that, we now are creating the anchors for increased revitalization throughout all of the neighborhoods and throughout all Detroit.

And so, that's the Motor City Match Competition. We're also supporting bringing in activities and support for entrepreneurs from around the nation. So the Power Moves Competition, for example was started in New Orleans. I was actually there at the inaugural Power Moves Competition. This competition has been extraordinary at curating a set of minority-run tech, high-growth companies, and giving these entrepreneurs an opportunity to pitch for a variety of funding sources.

The Power Moves Competition came to Detroit for the first time this year, attracting and growing an amazing set of entrepreneurs in Detroit, and giving it the opportunity to really showcase the kinds of high-growth and high-tech companies that are run by people of a very diverse set of backgrounds.

And so, as we look at the kinds of opportunities that we have here, we recognize the

importance of technology companies. We recognize the importance of companies that may be tech enabled. And we recognize the importance of having that convergence of these as well.

And so, I'm very excited today about the opportunity to talk about where health and technology will meet, and being able to support all of the kinds of innovation that will come out of the discussion today. So thank you again for coming, and I look forward to any questions you have.

(Applause.)

MR. STAEBLER: Well, I think we're moving onto a Fireside Chat. We're still having a debate about exactly we're moving on to --

(Laughter.)

MR. STAEBLER: -- but I blame it all on Paul because is in the other room, and he was in charge of this stuff. So when he gets here in a couple of minutes, we'll all boo him when he comes in.

But I'm excited for this Fireside Chat for a number of reasons, not the least of which that Paul and I spend a lot of time talking about urban entrepreneurship and what exactly that means.

Our definition -- a lot of people hear it and they think social innovation, blah, blah, that

kind of stuff, and it has a decidedly non-bottom line or non-financially motivated bottom line side to it. And I think that's great. I think more people should be doing that, and we should be trying to find more efficient and effective ways to do it.

But when we start talking about urban entrepreneurship, sometimes I think that some of the challenges that we're facing, there isn't enough money in philanthropy and government to effect the kind of change we need. We need -- you look around the City of Detroit. Obvious example is you have 80,000 blighted properties or abandoned houses. There isn't enough government money in the world to take care of that problem. And that's just one example.

But if you bring in a for-profit model to this challenge, and you bring in some technology as well, you can create another stream of capital to help solve some of these problems. So we've been talking about doing an accelerator program specifically designed around for-profit business models and companies that are looking to solve urban challenges. So I think I'm going to get to hear some ideas during this panel that are going to inform some of what we do as we go forward on that front

So rather than introducing everybody and

having big long speeches, I'm going to shift the burden and ask them to do it themselves. And I'm really just going to ask our panel to come up, and I'll introduce them by name, and as we go through, they can tell you who and why they're here.

So we're going to start with Dr. Yahya Shaikh. There we go. And we have Chris Gibbons. I saw Chris. Oh, there we go. Priya Gogoi. Sorry if I got that wrong. James Mullen, and Thomas Shehab. And, of course, I can't forget the Commissioner, Commissioner Clyburn.

COMMISSIONER CLYBURN: Thank you so much, Mr. Staebler.

While we are setting up and sharing mics and starting off with a very interactive e-conversation, I want to once again welcome each of you for joining us today. This is a very interesting panel, and I'm especially excited about having the ability to speak to a number of people who are on the front lines; business makers, you know, those who are medical professionals, you know, talking about the journey and the challenges that are before us, and much more so, I think, the possibilities.

You sense and feel a lot of enthusiasm in this space because we recognize a couple of things.

Number one, when we talk about innovation and when we talk about tech corridors, we recognize that if these corridors are in the midst of innovation, if it's not inclusive, then the goals which they promise will not be realized. So, allow this Fire Chat (sic) conversation which we might need a little fire in the next couple of days in terms of warming us up.

So let us, you know, fall thaw and really whittle away -- I'm from the South -- all of the preconceived notions about who belongs and how we do things. And I think the people that you have on this panel will help in that.

And so, I've got some lead-ins that I was instructed to say to you. I'm going to dispense with that, because you didn't come here to hear from a government official, though I think I'm significant.

(Laughter.)

COMMISSIONER CLYBURN: You came to hear from five people who are making things happen, and who are very open, and I've talked to them, with working with all of you to continuing and socializing that.

So I'm a public servant, obviously. And my main focus, or my main focus has been since my early days in regulation, about the consumer experience. Because often we have a tendency to look at things and

make decisions in terms of our mannerisms. And sometimes those decisions, we seem to be divorced from reality.

But to help make sure that I am in place, we are identifying, I think, part of our mission, you know, how do we develop compelling solutions with a strong value proposition? We recognize that, you know, these things are not easy. But you, again, are researching, and discovering, and innovating. And you have compelling applications when it comes to all of this.

So describe to me, and let's go down the row: who you are and your thinking in your application, how they all are evolving given this dynamic, and given the challenges of the day. So I'll start with you.

MR. MULLEN: Well, my name is Jim Mullen, and we incorporated in Memphis, but since then we've kind of found that our priority is far more worthwhile is software. So what we've created is, we've created a system for tracking and monitoring the conditions that blood is shipped in between blood bank and transfusion. And we've been able to give real time feedback as to those conditions, and with alerts so that way blood doesn't leave that temperature range,

and -- because blood is sometimes wasted or spoiled when it does leave that one- to six-degree temperature range.

And so, we've really been, I guess, we've really built a product around that, and along with the FDA regulations that require that to be constantly tracked. And we've created a real upgrade on the, I guess, the real flawed system that hospitals had been implementing previously.

COMMISSIONER CLYBURN: Wow, very good. Things got a little brighter. Look how powerful you are.

(Laughter.)

COMMISSIONER CLYBURN: And one of the things that I think we may not realize, but if we think about it, you know, I've read some facts, even for you about your background, and about the ecosystem that we're speaking of here. A total of 30 million blood components are transfused annually in America, and blood is often the single largest expenditure at a hospital.

And so, you know, it's interesting that you chose this path. I mean, you're a relatively new startup in terms of, again, if you would continue.

MR. MULLEN: Yeah. So we started off by

working at Vanderbilt University, and so we really identified it as a very niche problem that was happening at Vanderbilt. And we built our product originally based around that, and solely for the purpose of their blood and wastage. And that was because we looked and said even if they waste only like two percent of their blood, they still end up wasting several hundreds of thousands of dollars.

And so, we built a product that can do a lot of tracking in the ordered system, but then as we tried to expand that out to some of the smaller hospital, we realized that we were able to capture far more than just the wastage on it. So we expanded and really built one that was able work along with the FDA compliance issues that they had been having.

And so, that's where we are right now. We're not only focused as a hardware company serving for wastage, but we catch a far larger plethora of value for our customers. And it's kind of been interesting for us making some of that line up.

I guess the real, I guess, struggles that we faced early on was identifying a way that we could reduce the costs of implementing in the hospitals.

And so part of what we fond is that there are several companies that work off RTLS, which is

real-time location systems. And so, they provide infrastructure, or wireless infrastructures through some hospitals as a third party vendor.

And so, we've really made an effort to partner with them, so that we're able to catch the benefits of using our software while all the data is uploaded through the infrastructure that's created through both their hardware, their gateways, and kind of the existing infrastructure that they provide in the hospital.

COMMISSIONER CLYBURN: So seated to your right is a young lady, and I can say that these days -- it hurts me to be able to say that these days.

(Laughter.)

COMMISSIONER CLYBURN: Priya Gogoi, who is the vice president of research and strategies for DeNovo Sciences. So, tell me a bit about what your focus is. When you talk about the diagnostic side of the equation, over -- particularly when you are looking at that, it's very appropriate that you two are seated next to each other. Because, again, your device -- correct me if I go off course -- uses a tabletop size device to check a sample of the patient's blood to see if there are any cancer cells present. And we know, again, how devastating that

particular disease is.

So if you could introduce yourself and expand on that, please.

MS. GOGOI: Hi. My name is Priya Gogoi. I'm co-founder of DeNovo Sciences. So to better explain the technology we do, I should start with our story.

So usually when you hear of tech companies, they start with technology, but DeNovo Sciences is different. We started with the idea that we want to make an impact in the world.

COMMISSIONER CLYBURN: Can everyone hear her? I can hear her fine, but -- here you go, I think you're --

MS. GOGOI: So --

COMMISSIONER CLYBURN: Whoa.

(Laughter.)

COMMISSIONER CLYBURN: So we can get a little less -- thank you. Oh, no, please don't. Yeah, we can hear you.

(Laughter.)

MS. GOGOI: Anyways, so it's a very different story in the way that the co-founders of DeNovo Sciences, we started. Because we wanted to make an impact on the world, but we had no idea when

we started. We didn't start with an idea. We just started with a passion that we will do something that will change people's lives.

So that's how it started. I'm Indian. Another co-founder is from Iran, and the third co-founder, Chris Seimer, was American. So we were from three different countries. We wanted to make an impact, but we didn't have any money to start with.

At first funding was everything I committed from my internship money at Experian, another startup. That was $10,000 that I had calculated or, you know, kept it aside to keep us running. But we didn't have any funding, nothing. The only way we had to win it, we got it through reading all the business plans competitions.

So we created our technology from our kitchen, from my kitchen. So first, we went on to win the Great Lakes Entrepreneurship Quest, $5,000. We had to win it, because there was no other way we could get funding. And then we got like half a bench of lab space.

And we went around local professors around the state. We went around to U of M, Eastern Michigan. We asked them, well, we have come up with the top, these ideas. Which do you think has an

impact? And people helped us, and through that half a bench of, you know, lab space, we created the technology that helped us to win a half a million dollars Accelerate Michigan grand prize money, which was what started us.

So after the winning of Accelerate Michigan money, we expanded. We raised $5.6 million from Indian investors, and today we have a fully commercialized, you know, automatic machine that can take a tube of blood from a cancer patient, and we can find cancer cells from blood that otherwise we have to take tissue biopsies, which is painful and costly.

And from this year, the idea that we started, you know, we wanted to make an impact on this world. So we are going for diagnostics. We are going for an FDA trial so that ultimately our device can reach people and help, the cause that we started.

COMMISSIONER CLYBURN: So, Priya, clearly you're just meeting the next person on your right. Dr. Thomas Shehab, is a principal of Arboretum Ventures. And I quote, "We finance more than companies. We finance better healthcare."

So Priya mentioned, Doctor, a significant bottleneck for innovation investment, and things getting to market, and solving some of our more

chronic problems, and that is finance. So if you would please come from that perspective.

DR. SHEHAB: Absolutely. So I'm Tom Shehab. I'm a native Detroiter. I went to medical school just down the road at Wayne State a long time ago. I'm a physician. My background is healthcare exec. And I'm now in venture capital, and I think it's important to tell the story because it potentiates the reason I do that.

So I had a very traditional job as a healthcare exec and had the opportunity to come to the venture side of the world to really try to connect capital to the folks with ideas. And part of that was, and I think it's very consistent with the theme today. Healthcare over the last 300 or 400 years has taken places in boxes.

So it's a little bit like media. Media came on a TV or it came on a movie screen. It was a square or rectangular box. Healthcare has taken place in buildings and in rooms that are often made of bricks and mortar, and that's where healthcare was and you went to it.

Healthcare now has fundamentally changed like it never has before mainly because of connectivity. And I think we're going to see more

change in healthcare over the next 10 to 15 years than we've ever seen before.

Somebody used the word "customer." Someone used the word "connectivity." We can connect with anybody we want to. We can connect with the FCC and reach the Commissioner via a device, yet you can't reach your doctor, over the last 30 years, via a device, without waiting in a waiting room for a long period of time.

So the compelling opportunity for me to be able to help connect folks like the two folks on my left to the funding that helps them to build ideas to really move healthcare forward is really the compelling reason that I now work on the venture capital side, particularly the focus in the upper Midwest in Michigan, and excited Paul asked me to come home to Detroit to be able to speak on it.

But I think that the key issue is for those who aren't very close to healthcare, everything you think you know about healthcare I think is being re-thought about right now. The fundamental way we deliver healthcare is going to change more than it probably ever has. Part of it will be technology. Part of it will the empowerment of patients in all communities to finally get healthcare the way they

want it and the way they need it. As opposed to on an 8:00 to 5:00, when the doctor is in, and when they'll be able to see you.

And I think the connectivity that we're talking about and the ability, whether it be broadband or other ways, to allow us to extend ourselves as healthcare providers and healthcare folks; to our patients. And be able to close some of the gaps that happen based on geography, or social economics, or other determinants of care. I think those walls are going to really be able to broken down by technology, and we're at the forefront of a very exciting lift.

COMMISSIONER CLYBURN: So I appreciate that, and please, if you have questions, either we will have cards or someone will walk around with a wireless mic for you to do so. If you could raise your hand. When I tilt my head to the left that's your sign that possibly it's -- and Ben or someone in the room will help facilitate that.

Now, you mentioned, Doctor, that the way in which, you know, healthcare and wellness will be delivered, you know, will change and has changed as a result of technology. The way in which approach things from a regulatory standpoint at the FCC is changing, and will change, because of technology and

the recognition that this has to be at the forefront, at the epicenter, and all wherever I just left off in that description when it comes to health and wellness.

And the next two gentlemen you'll hear from, were brought to the FCC because we recognize that that is the case, that if we don't have the data and the expertise right literally at the click of our mice, that we will be regulating and making decisions in a vacuum.

So, Dr. Shaikh, if you would.

DR. SHAIKH: My name is Yahya Shaikh. I'm a physician as well. I'm one of the two physicians on the Connect2Health Task Force. My training is in preventative medicine, ER surgery. It's a real honor to be here with entrepreneurs. I was an entrepreneur myself after med school. I had a company related to healthcare, in data analytics and that type of health.

And one of the things that's really interesting about entrepreneurship, is that you're always asking the question whether your product is right for the market, and what tweaks you need to make, how to make it happen. And after I got into other things, I realized that that's the same question you ask in every other passage of life. It's an existential question, so you're constantly in an

existential crises. So, you're actually in that sweet spot.

So I'm glad to be here, but the interesting thing about the entrepreneurs on the panel is that the industry sectors that they're addressing are huge and profound. So, for example, Patrick, you're addressing essentially the IOT in the healthcare sector, where you're managing resource allocation in the healthcare system to reduce costs and optimize outcomes.

And what you're doing basically, Priya, is trying to make lab tests available, but we've also heard about where Theranos, where they're instructing people about that lab market. Well, this is very similar, and both of them have a very strong connection with connectivity. IOT is intrinsic with connectivity.

Lab tests, much of the cloud computing -- much of the computing being done can be shifted to the cloud. In fact, I know a few companies that do something very similar, not exactly overlapping, but very similar, where they reduce costs by shifting analyses to the cloud. So there's a huge market industries, billion dollar industries that this particular panel represents. And I know I've read a little bit about Arboretum Ventures, and the kind of

investments that they're making and outcomes that they're expecting is extremely disruptive.

So I'm honored to be part of this panel, and I'm looking forward to the conversation.

COMMISSIONER CLYBURN: And just, and I didn't give Dr. Shaheb enough credit. So his company was founded in 2002, and they manage about $450 million in capital. And to date, the last information I have, they've invested in more than 35 companies.

So, Dr. Gibbons?

DR. GIBBONS: Sure. I am Chris Gibbons. I'm also a physician. Like Dr. Shaikh, I trained in preventive medicine and general surgery. And when I started, I also have a startup where we've developed some technology.

But let me go back. When I started years ago, I had no background in business. I had no background in coding. I had no background in anything. I just, like Dr. Shehab, saw patients and the problems they were having, and particularly in East Baltimore where I was working, it essentially is an inner city ghetto. Many academic centers are in inner city ghettos, unfortunately.

And I was operating on operating on patients, and seeing them in ERs, and treating them

when they'd go home, and then I'd see them again in two weeks or see them again in a month. And it was just a revolving cycle over and over and over and over again. And I said, "there's got to be more. We've got to as a health system be able to do something that can stop these cycles and can help."

And as I began to look more at that, those answers are largely not in the healthcare system that we had at that time. It's still not there, although we're moving, I think, in the right direction. And so, earlier we were meeting at the iBio Center, and Dr. Wisdom talked to community health workers, and I, too, had stumbled on that model many years ago.

And while I do believe technology has profound implications, I think people are also part of the puzzle. It's not just technology. So, community health workers are sort of intermediaries that work between the healthcare system and the community to help translate things.

And so, we started a program 10 years ago there. The idea, though, wasn't to do community health workers because that had already been done. The idea was to develop a technology that community health workers could use in the field that it would make what they do even so much more connected to the

system.

And so, I started down this road as an academic at the time getting grants. I got a grant -- I had no idea even what the first stage was to do, kind of like Priya. And the experience has been amazing. I've learned a lot, and the market has changed a lot, so we can talk about all those kinds of things.

But I'll just tell you that, that's sort of my background, and ever since then I've become more and more involved in the technology side of the coin both for consumers, but also for physicians. And now most recently, I'm coming at it outside of the healthcare system. As of July 1st this year, I came on board full time with the FCC.

COMMISSIONER CLYBURN: So the last two gentlemen you met are very modest, are very connected, and recognize that these intersects that we speak often so eloquently about, but apply often in very siloed, seemingly disjointed sometimes, you know, ways. That, again, these are our experts at the FCC.

So I'm bragging a little bit because I wanted you to know that your government is being forward thinking, and honestly challenging ourselves to make sure that we're in sync where the evolution of

medicine, of health and wellness, where that is headed.

So I want to -- again, if there are any questions. I'm not going to be the traditional, the one that would tee things off. We've got a question, and maybe you will help me with my next question --

(Laughter.)

COMMISSIONER CLYBURN: -- if you identify yourself. But I really want this to be interactive. You've got entrepreneurs. You've got all entrepreneurs, truthfully, with different backgrounds and from different perspectives. This is a rare opportunity for all of us to engage. And if you identify yourself and tee up your question, we'd appreciate it.

MS. VICARS-HOLLOWAY: Okay. My name is Kate Vicars-Holloway, and I'm a nurse that specializes in utilizing innovative technology to improve patient care. And my question is, insurance companies are now reimbursing providers for telehealth sessions. However, it's often unclear where the Michigan regulations are and under which circumstances that these telehealth sessions will be reimbursed by physicians and healthcare providers.

And this is very important in our state and

this area, which is underrepresented and needs the telehealth. So can you discuss that more?

DR. SHAIKH: Well, that's a great question, especially when it comes to this sort of technologies because -- I'll just do intersect with telehealth. And the concept of telehealth is expanding beyond just telemedicine. It's not just a screen on a person. It's also about health monitoring and things like that.

CMS came up with codes recently, and a lot of large insurance companies follow CMS's lead. Those codes are, you know, our main telehealth companies are saying that they're not sufficient. And I agree with them; I've seen those codes myself. But then at the state level as well, there are policies of the State Medical Boards, and the state authorities' consent in order to set their own policies.

For example, in Florida where we -- in Mississippi actually, there's a huge push towards acceptance, especially from the Governor. He's an advocate of telehealth. And we were there recently as part of for understanding and trying to understand local ecosystems. And they were explaining how, one of the persons, her name is Christina Anderson, how she advocates for this, and she has the Governor as a

partner.

And I think more of those activities happening at the local level, the state level, can then percolate to the top and inform CMS policies. But then -- but, your question is relevant to reimbursement when it happens for, you know, the panelists here, too.

And maybe you can speak on your financial models; because at the end of the day, digital technologies in some way interact with the healthcare system interface at some point in the healthcare system. And so I'm interested to hear what your financial models are and how that is, with the telehealth work.

MR. MULLEN: Well, for us, we also had somewhat similar struggles in the way that, there is limited reimbursement for, some of this is specific, and kind of, I guess, innovative as what we were doing. And part of the reason for that is because they looked at kind of where the money and the costs that we were saving comes from.

And because we were addressing a wastage issue and because we were addressing a, you know, kind of a streamlining issue, it's not taking it from one specific patient, which is how so many of those

reimbursement codes work.

And so, currently we're not reimbursed. And part of the reason that we feel that we're not is because it's not addressed specifically to a patient, but more so addressed to kind of a larger subscription model based on the efficiency of the hospital. And so we expect -- the way, I guess, our costs work is that our subscription model is based on the size of the hospital.

Because at the larger hospitals, we're capable of saving far more, just based on kind of the work patterns, and the blood that's saved, and kind of logistical hassle, but yeah, of the reimbursement code.

COMMISSIONER CLYBURN: So, again, a key element or dynamic was identified as, you know, part of the challenge for more effective delivery. Are there any more that come to mind?

And, again, I'd like to have the balance of, you know, challenge and opportunities. And if you could weave into that, some of the unique, you know, opportunities that you foresee. Because there are some, I recognize some people from the last conversation we had. You've got some developers and others and entrepreneurs here that might be at

different stages. And all of you were, well, early, you know, still might be light-years ahead of those who might be watching.

So if you could, within that lend your perspectives, in no particular order. We don't have to -- that drives me crazy going down the row. So why don't you break the pattern? Somebody jump right in who's not necessarily next to you?

DR. SHEHAB: I'll just give a general comment about the issue you're raising, which is; we all know that technology usually will be ahead of the policy. And the policies specifically around reimbursement often lags even further. It's not a criticism at all. It's just a factor.

And so, one of the things that I think all of us entrepreneurs is we hear about technological entrepreneurship, we hear about connectedness. I think what's really needed in healthcare is a fundamental redesign of the way that we get to these decisions on reimbursement otherwise.

And so, I'd just put that out there that as people think about the technologies, which they're always very important, but they may seem like the sexier type of things. We need some more basic change in policy around: what is the value of telehealth?

Does everyone buy into the value, and then where do you take that? It's a zero-sum game on the healthcare and economics. Usually there's only so much that's done in healthcare.

You're going to be robbing Peter to pay Paul with that. That may be the right thing to do, but I think all of us in this room, particularly the folks here from the FCC side. The fact that they're here getting our opinions right now, I think, is light-years ahead of what's happened in the past around policy and around healthcare decision-making.

But we can all be the voice to argue, and nobody is more compelling than a nurse who provides care to patients, on the intrinsic value of that. And I would just say that we should kind of continue on that moniker as we go forward because reimbursing, when you look at $100,000 a year versus preventative healthcare with telemedicine, how do you balance that? I don't have the answer, but I think we all can help to inform that answer over time, you know.

COMMISSIONER CLYBURN: And thank you so much, Doctor, because the purpose of this outreach, of us getting outside of the Beltway, so to speak, is to do that. We recognize that included in those lags are regulatory lags, and often some are for a reason. You

know, we want to protect, you know, the consumers from, you know, persons who might be opportunistic and opportunistic alone. But also really have to be careful not to stand in the way of innovative concepts that will address some of these longstanding divides and challenges that we have.

So, Dr. Gibbons, I think I saw you, then Priya.

MS. GOGOI: So I can give you the side from our revolutionary field, which is liquid biopsy. So a few years back, a few years back, so what we are doing is getting, you know, separating tumor cells from blood. And it was partially reimbursed, but recently they again took it back, which was a setback. So startups have to always, you know, brace itself for bad news.

Yes, it was a challenge because we were going into the diagnostics, and this news was disappointing. But that's part of our, you know, part and parcel of startups. When we met FDA, they are saying that, "this is the future." Liquid biopsy is the future. And the government and FDA also needs innovative companies like us to show the way.

So we are not afraid. We'll go for clinical trial. We are going to show, and it's a constant we

are in. We are together in this.

DR. GIBBONS: That's exactly what I was going to say. I agree with both Dr. Shehab and others. The innovation is always going to be ahead of policy, so don't -- I encourage you and I try to do it myself, don't constrain yourself by how you've gotten paid in the past; right? We're still going to have to be paid for innovation, too. But the thing that will drive it best is the value.

So if you create something that works, somebody is going to pay for it because it works, right? It's a no-brainer. Now, I know it's not that easy, but that's the reality of the game. Nobody is going to keep paying for something that isn't working. That's why the healthcare system is changing.

So think about what's best. Think about what you're doing and how to make it as cost-effective as possible, but don't necessarily constrain yourself with, "how can I be paid." Within the context of the system we've had up to this point.

COMMISSIONER CLYBURN: And I think we have another question in the audience. Yes, ma'am?

MS. TINA: Good afternoon. My name is Tina, and I'm one of the entrepreneurs who's part of RBC here at TechTown for this class. I actually graduate

next week.

COMMISSIONER CLYBURN: Congratulations in advance.

MS. TINA: Thank you. I'm a personal trainer, and this question is specifically for Dr. Gibbons, but feel free anyone to answer it. What kind of programs do you all have in place for preventative care? Because we talk about all the time what we're going to do after the fact, after someone is sick or after they need the type of services that you all provide. But what about the care and services, educational programs beforehand, specifically in underserved minority communities?

DR. GIBBONS: So now I'm in the capacity of the FCC. So the FCC has those kinds of programs. So that -- were you asking me about when I was on the faculty at Hopkins or just in general?

MS. TINA: In general.

DR. GIBBONS: Okay. So in general, I think you're absolutely right. You struck an area that needs a lot more innovation and a lot more solutions, and there's a lot of opportunity. The financing side is still there. How do you pay for that in the current system? Don't worry about that.

I think, and especially for underserved

populations, that's the sort of niche that I've carved for myself, especially over the last decade and a half. And so, we can talk offline, but from my perspective, there's not enough there. There's not nearly enough. There are some people working, but much more needs to be done.

COMMISSIONER CLYBURN: And you're right. When we talk about it from a regulatory standpoint at the FCC with the particular task force, we don't just say, you know, health in terms of care delivery. We talk about health and wellness. And so, it's really important for us to look at this, the entire ecosystem about, you know, addressing the needs. And hopefully connecting people when it comes to food deserts and other types of other deserts that are preventing or, you know, making things worse in the communities.

So it's going to be -- it seems really broad, but I think if you recognize that, you know, all of these components as broad and as challenges (sic) as they may be, if we think about it all as a part of a vast necessary inclusive ecosystem, then we will again, we will have these outcomes.

And the rest of it, you talk about reimbursement and the other models. We need to have a very serious series of discussions about making sure

that the economic incentives are in line with the results that we want. It's not efficient to, you know, continue this triage, you know, approach to healthcare. And that is what we are attempting to be a part.

I think I saw a couple -- the gentleman on my left.

MR. GABHART: I'm David Gabhart from Henry Ford Health System. I'm interested in the interface between startup entrepreneurs and health systems. But I wanted to know whether any of you have engaged with the health system in your R&D, and if not, how you might like to connect and collaborate with the health system. Thank you.

DR. SHEHAB: I'll take it first, as we're, you know, going to have wearing a venture capital hat, but before that I want to make my comment to Tina. Tina, traditional healthcare is not going to fix what you're doing, so keep doing what you're doing because it's going to people like you who figure out how to deal with that issue. It's not going to be us on the traditional healthcare side, no offense to the healthcare systems.

To answer your question, quite honestly I think that we as a venture capital firm work very

actively to try to tie our healthcare startups and health systems for a number of reasons.

There's a mutual benefit there, in that often the health system is looking for a solution to a problem that someone like a number in this room in this room have started to come up. But it's hard for them to get the bandwidth to be able to talk to someone to get there.

On the other end, it's an amazing testing ground to the point that Dr. Gibbons made, which is if you show that it works, then it's going to eventually get paid for. Well, if you can show that it works in the Henry Ford Health System, or a receiving hospital, or at Hopkins, there's a tremendous amount of credibility for that.

So there's a mutually beneficial thing. The thing that we have to do is I think close -- all of us -- the gap between the entrepreneur who's coming out of their accelerator or incubator class, and the folks at the large health systems who have that opportunity, and connect those people together. So that's just an editorial comment, but I think hopefully relevant.

COMMISSIONER CLYBURN: And time is not going to be on our side, so we're going to entertain, if you would, please raise your hand, up to three questions.

We'll get the questions asked. I will ask the panelists to remember them in their own way and incorporate in your closing remarks, you know, addressing the questions and whatever thoughts that I did not help to extract from you today.

MR. SIMON: Hello, I'm Robert Simon, Jr. from the Michigan Department of Health and Human Services. My question is more on the fact that we're talking about health disparities that exist in Michigan and nationwide. How is the profit model going to help reduce those disparities?

COMMISSIONER CLYBURN: Okay. Any other questions?

MR. BRADY: My name is Mike Brady, and I want to understand how would you possibly level the playing field from the young lady is doing services that are actually affecting outcomes and doing well in the community, but is not attractive to the hospital and insurance companies to fund? But, her idea and his idea is much more an attractive innovation idea because, they can reduce their costs and make more money. But how does someone compete and level the playing field?

COMMISSIONER CLYBURN: Is there a last one?

MALE SPEAKER: One more question?

COMMISSIONER CLYBURN: Everybody is acting shy in here.

(Laughter.)

COMMISSIONER CLYBURN: Is there anything that was not asked of this panel that you would like to? Going once, going twice, sold. Let's do that, Dr. Gibbons if we go down the row and incorporate that in your close, please.

DR. GIBBONS: So I could talk all year about this. I won't.

(Laughter.)

DR. GIBBONS: But let me just say in answering both your question and your question, nothing worth it is easy, right? So I'm not even trying to say this is easy, but I do fundamentally believe it is possible to do both of those.

And let me answer it this way. Nike, Reebok, Sony, Nintendo, they figured out how to get money out of low-income communities quite effectively, right? Now, you might argue that those things are wasting people's lives or whatever, but they figured it out. I'm suggesting that those kinds of thinking need to come into healthcare and public health not to extract money, but to find ways to get into those communities because people are already there.

You don't have to beg anybody in low income communities to use a Game Boy; right? I just dated myself. So, what's the new one?

(Laughter.)

COMMISSIONER CLYBURN: Technology is a challenge. Go ahead.

DR. GIBBONS: But the point is getting new thinking is not going to happen the way we've been thinking before in medicine or public health. We've got to -- social media is moving people to do things. We just need to get it to move people to do healthy things. And so we can do it.

COMMISSIONER CLYBURN: Thank you. Dr. Shaikh?

DR. SHAIKH: I agree with Chris. One thing I want to highlight, though, relevant to the question about profit and Tina's question about current services, we're in a very unique time right now. Where, you know, once the ACA was passed, we have several different practice models. So it's not the same model that we had five, six, 10 years ago.

We have things called ACOs now that are actually driven by profit, but not necessarily reimbursement by CMS. So, for example, preventive services, the services that may not be reimbursed by

CMS right now; the same services that actually you paid for, or even some services might actually be paid for by ACOs. Just because with the ACO you work with, in the model where taking care of the patient in the community is what matters.

So telehealth services, even if the state doesn't have a code, even if your insurance company doesn't pay for it; well, at the end of the day, keeping the patient in the community out of the hospital is what pays for itself. So there's an intrinsic benefit to forming up cash for that, for the practice in the clinical setting.

So there's a lot of opportunities right now in the charters. The playing field is completely different than it was a few years ago. And I think because we're startups, we have the tenacity to think differently, take the same product it and market it differently. And I think there are places where we can fit in where we can start making monetization models for what our products do.

DR. SHEHAB: Just briefly, I think that one thing, the fact that right now in Detroit we have folks in the FCC and the community here bumping elbows and trying to ask that question that Mike Brady asked, I think already is a step in the right direction.

DR. GIBBONS: Yes.

DR. SHEHAB: I think the second thing is, which is very important is, people realize in healthcare you're going to pay me now or you're going to pay me later. So they're going to have costs on the back end independent of where you are -- urban, rural, inner city, not inner city. And so, I think people are starting to think about that now and look at the costs across the life of someone, and can I do something with Tina up front in preventative to prevent the disease. That's worthwhile.

I'll just give you an example. There's a community resource in a couple of cities, one of which is Detroit. We have three centers. It's something that we funded, putting your money where your mouth is called Concerto, which was formerly Fidelis; trying to take care of folks, dual eligible folks, who are Medicaid and Medicare, trying to do that exactly that, Mike, not out in the suburbs, but in the city. We'll see what comes from that, but we feel very promising.

So I think there's more light shining on that issue than there's been before. We've got a long way to go, but I feel pretty optimistic that there'll be benefit over time.

COMMISSIONER CLYBURN: Priya?

MS. GOGOI: My suggestion to your question is that I will give my advice to the young lady. You know, when we started also we had no idea. Life is tough for startups, and if you make your technology, it doesn't matter if it's an attractive technology. It doesn't matter, it's the service.

If the customers like it, if there's market for it, you will make it. It doesn't matter. It's always the customer, the need. If you are solving something, a problem, a real need, you'll make it.

And the other question was about for-profit, you know, how it will help the healthcare. Well, here's my side. People like us, we have two choices. Either we go into research in academy labs nonprofit and we churn out 10 papers. We don't have any control over what research we do, what we do, but we'll give 10 papers. Does it help people? Is it getting to people? No, but we want it, for us to get out technology to the people where it matters.

So the fastest way for us to do it, is through profit. We are not after, you know, only money, but this is the way we can create innovation. So that's --

COMMISSIONER CLYBURN: James?

MR. MULLEN: I couldn't agree with anyone

more. It's been -- yeah, it's definitely a struggle to get something new and innovative on the market, and for us it was trial and error. We tried a couple of different profit models before we found one that finally works. And we had to figure out who to address.

And I think for a lot of startups, it's going to be the exact same; where you're going to make mistakes in doing that, but those mistakes are always kind of one step in the right direction. And once you do have people who are figuring out, other people will recognize that, and that's how that change, I feel, is about.

COMMISSIONER CLYBURN: Thank you. So please join me in thanking the panelists.

(Applause.)

COMMISSIONER CLYBURN: So in addition to thanking all of you, I'd like thank TechTown and Wayne State for an absolutely incredible, so incredible I can't get it out, today.

(Applause.)

COMMISSIONER CLYBURN: So you all are here because you recognize that that this is an investment in our future. You are here because you recognize that as great an ecosystem as we might have compared

to the rest of the world, that we know in terms of what it's designed to do and what our objectives are, that we have the capacity to do things better.

I close with you with the thought that when I was struggling with a speech last week, my chief mentor, who happens to be named, to be James. And I say chief co-mentor because Emily, my mother would be upset --

(Laughter.)

COMMISSIONER CLYBURN: Talked to me about, he said, "why don't you talk about being either efficient or effective." Now, we have done a phenomenal job in terms of efficiencies. We deliver these systems. They have incredibly changed the lives of millions. But what we have to work on today is being effective, and that makes more ubiquity. That means, you know, having access as well as delivery models that help to cure and improve the outcomes of all.

So I say to you, that even though in too many of our places and portfolios, we've done a pretty good job of one, in terms of being efficient -- I think there's a crossroads of efficiency and effectiveness. And I believe you are here because you recognize that there's that crossroads, and we can get

phenomenal benefits from that.

So thank you very much for this panel. We will move to the next, and I am looking forward to continuing to learn more, and to hear from you after today. It's not going to benefit if this is the only time we interact. Thank you very much.

(Applause.)

MR. RISER: So stay in your seats, please. The icing of the cake is here before us now, so we have another panel coming up. By the way, I'm Paul Riser, managing director of Tech Based Entrepreneur Programs here at TechTown Detroit, and we're very grateful for each and every one of you being here today.

Definitely want to continue this conversation, not only about the intersection of broadband healthcare and IT, but succinctly how it impacts the City of Detroit. And so, I think we've put together a great panel of thought leaders, those with experience and wisdom in this space. And we have James Beasley, who was a past chairman of the Detroit Cable Commission, to moderate this panel. I'm just going to drive on the passenger side, so to say.

So I'll help out, and like Commissioner Clyburn noted, I really hope that we continue the

engagement of the audience. I really wanted to make sure that the panel that we have represented today was very representative of the city and brought a breadth of different perspectives and experiences.

So without further ado, hopefully we have our panelists here, and our main, Dr. Loretta Bush. Loretta is here. And Eric Frederick. I'm sorry. Loretta is actually the president and CEO for the Institute for Population Health, and so it's become resoundingly and very clearly important and understood by me over the last couple of months about talking about this particular summit that we have this representation in the Institute for Population Health in this discussion.

Eric Frederick is the executive director of Connect Michigan. Eric is here. Welcome, Eric. Mark Hudson, co-founder of Rocket Fiber, and so we know Rocket Fiber is laying down a tremendous amount of connectivity and lines and gigabit ethernet in our city. And we want to understand that impact.

So also Pam Lewis, Senior Program Manager for New Economy Initiative. Patrick Gossman, Deputy CIO, Community Research and Special Projects, from Wayne State University. And Dr. Monique Butler, Chief Medical Officer of DNC Sinai-Grace is also with us

here today.

So like I said, we have a wonderful panel to really excite and invigorate this conversation. So without further ado, like I said, I know when to get into the passenger seat. I'm going to let the driver come in here. Mr. James Beasley, you take over from here, and I'll help out where I can. If there are any mics -- excuse me, I'm sorry -- if there are any other mics maybe that I can use here in the audience.

MR. BEASLEY: All right. Thank you very much, Paul. First of all, I'd like to thank TechTown, the FCC, and Wayne State University for hosting this tremendous day here. It's insightful, and from my standpoint this is how government should work. Government should be a bilateral conversation, and it's for the people, by the people, and created by the people, so we really appreciate you, Commissioner, for organizing this and bringing it in.

Now, before I start, I'm going to be very quick because this section here is called the lightning round.

(Laughter.)

MR. BEASLEY: So before I start, but I'm sort of reminded of the old preacher who got ready to start his trial sermon, and he showed up to the

church, and he looked around the church, and there was just one solitary soul sitting in the congregation. And the preacher said, I don't know what to do. He says, I've prepared my sermon, but you're the only person that's here.

Well, the parishioner says, "Well, Pastor, I can't tell you what to do. I'm a farmer, not a preacher. When it comes time to feed my sheep, I go out into the field and I feed them." So the preacher was very encouraged, so he stepped into the pulpit and he began to deliver his sermon. And as he began to deliver his sermon, he preached, and he preached, and he preached, and he preached.

This booger preached for two hours, and when he mercifully came to the end of his sermon, "he looked out and said, how did I do?" Well, the man looked up at him and said, "well, I can't tell you how you did. I'm a farmer, not a preacher. When it comes time to go and feed my sheep, I go out into the field and feed my sheep. But if only one sheep shows up, I don't dump the whole doggone load on it."

(Laughter.)

MR. BEASLEY: So it's rare we get a forum like this with this kind of talent, you know, sitting before us, and so I feel myself honored to come here,

you know. One more story and we'll get to that.

It's like a guy found an alley cat one time, and he brought the alley cat home. He washed the alley cat on up and put perfume on him, made him feel good.

Then he took the alley cat down to COBO Center where they were having a cat show. He got ready to register the cat, and the person sitting at the desk said, "Well, listen, this is a pedigree cat show. Why are you bringing this alley cat down here to this pedigree cat show?" The man said, "Well, I just thought the exposure would do him some good."

And that's sort of how I feel today. I thank Paul for inviting us down here. This kind of exposure, this kind of power --

(Laughter.)

MR. BEASLEY: -- is good for my soul. I'm just happy to be here.

What I'd like to do is, first of all, I'd like to start out as we go down the panel and have them introduce themselves and give you a little bit more of a background about who they are and what they do. So let's start out with Dr. Butler here, please.

DR. BUTLER: Hi. Good afternoon. What a great introduction. It's really nice to be with this

group of established individuals.

So I'm Dr. Monique Butler. I'm an internist first, but I'm also a physician executive. I'm the chief medical officer at Sinai-Grace Hospital, the only hospital on the West Side of Detroit where we see over 300 patients who come into our doors through our ED, 106,000 visits every year.

And computer technology and EMR being one of the most wired systems in the nation with the Detroit Medical Center is pretty important for us. Is it on? Better? Not really. Is that better? It doesn't sound like it's on. Maybe it's me.

(Technical interference.)

DR. BUTLER: Is this better? I could talk louder. Okay, I'll talk louder.

So internist, chief medical officer, Detroit Medical Center, proud to be the chief medical officer of Sinai-Grace Hospital, the only hospital located on the West Side of Detroit. We see over 300 patients who come into our ED every day, who utilize our ED as a primary care center, over 100,000 visits.

And the EMR, the electronic medical record, technology, meaningful use from the federal government has been very good to us and very important what we're finding. And we'll get into that, as many of our

patients are way more technologically savvy than we give them credit for.

MS. BUSH: Good afternoon. I'm not sure if you can hear me on this mic, but I love using my outside voice, so this is probably going to be easy for me.

(Laughter.)

MS. BUSH: I also have to say that since the doctor made the mistake of saying the words "Game Boy," I now feel much more comfortable in a room full of people who know technology. So I have no place to go but up after that one.

(Laughter.)

MS. BUSH: So I'm Loretta Bush, and I'm the president and CEO for the Institute for Population Health. We are probably the newest kid on the block in terms of a community health center and an agency that focuses on population health. We became operational on October 1st of 2012.

We have an interesting history, those of you who are Detroiters, or who were following what was going on in Detroit at the time. It was during the time when the consent agreement came into place, and we knew that we were facing the possibility of bankruptcy, and were looking for innovative ways to

continue to serve the residents of the City of Detroit.

At that time, I was the health officer for the City of Detroit, and was approached with the reality that we would need to zero out the public health budget, and was asked to look for a method for doing population-based health going forward. We quickly formed the Institute for Population Health, and the City of Detroit became our first and our largest client.

At that point we made history by developing a social entrepreneurial model, and we became the first public health institute in the country to take on all of the responsibilities of a health department. So we took on everything from soup to nuts.

As the city has now regained its ability to do those services themselves, we are now in a new situation where we are not only focusing on our broad population health mission, but we are also working more closely now with direct clinical care, but very excited to be bringing a public health and a preventative health and wellness approach to clinical care because that's our background.

One of the things that was exciting for me, but I'm sure for a roomful of people who use high

technology, just prior to me coming here, with the touch of one button I communicated with over 43,000 people about mobile mammography that we will be providing over the next few weeks.

So for me, in the past that would've been making a flier, putting it up in various different locations, and hoping that people saw it. Passing it out one by one to patients as they came in or at health fairs, mailing them out and probably getting over 80 percent of them returned because the addresses were no longer good.

So now, with the touch of a button, I was able to tell over 40-some thousand people that we would have mobile mammography available for them. And of those 40-some thousand, only six of them came back to me undeliverable. So, you know, when I look at those kinds of things, it's very exciting. And also to be talking about mobile mammography where we're going to take a mammogram into the community, where they can then get a screening and preventative care.

So with that, I'll pass on the mic.

MR. FREDERICK: Well, thank you, and good afternoon. Thank you for having me here today.

Now, for something completely different. My name is Eric Frederick, and I'm the executive director

of Connect Michigan, and also the Vice President of Community Affairs for Connected Nation, our nationwide nonprofit organization.

And in Michigan, we are a nonprofit and tasked with facilitating the expansion of broadband access, adoption, and use throughout the State of Michigan. We do that through a couple of different ways. We do broadband mapping, research, and community planning.

So the key word in what we do is "facilitation." So we're not a broadband provider, although we often get confused for one, and we're not a government entity. We claim a very strange third space between them to help facilitate and impact both the supply and the demand of broadband. We don't just look at infrastructure, and today we're really talking mostly about the adoption and the use of technology, particularly in healthcare.

I come from the world of urban and regional planning, so I like to take a very comprehensive look at things. So when I say that we do community planning, we work with 54 counties across the State of Michigan to examine their comprehensive access, adoption, and use of broadband and technology.

So we're not only focused on infrastructure

in rural areas and ultra high-speed connections in bigger cities, and we're not just concerned about residential adoption of technology. We're also concerned about how municipalities are using technology in communicating with the public, how the healthcare sector is using technology and communicating with the public.

We're also looking at things like public safety, and libraries, and community serve organizations, and agriculture producers, and higher education, and K-12 education. So we really do take a comprehensive look at broadband technology access, adoption, and use in that community. So the perspective I bring today, and we'll probably get into this a little bit later, is, you know, trying to break down some of those barriers to adoption and use, particularly with regard to healthcare information.

And we do that via very intimate community conversations, and the collection and analysis of hyper-local data so that we can get very surgical -- pun intended -- with the way that we prescribe solutions to overcoming some of the barriers that we find in our communities.

MR. HUDSON: My name is Mark Hudson. I'm the co-founder and CEO of a company called Rocket

Fiber. We're a brand-new internet service provider in the City of Detroit.

We deploy cutting-edge fiber optic infrastructure through much of downtown Detroit, and we're actually now building out mid-town. Our internet speed is roughly 100 times faster than the current residential average in the U.S. today, so it's the analogy of going from dial up to cable to DSL. We're making that same leap forward with fiber optic internet in Detroit.

So we're really excited to be playing a role in the reinvention of Detroit's economy as we move more towards a technology-based economy. And we actually are bringing our services online later this year, so we're really excited about that as well. We've been working on this project for almost three years now, and to finally bring it online is a really exciting time for our team. We just moved into our new office on Woodward downtown, and we have roughly 30 team members.

Another perspective that I bring today is that previous to Rocket Fiber, in another lifetime I worked on a health tech startup called Care Chat, which was a communication tool for families with loved ones in assisted living. Tried to build a tool to

connect families to the caregivers that perform many of the primary care functions which occur during the day while families are at work. So I have a little bit of perspective on that side as well.

MS. LEWIS: My name is Pam Lewis, and I think I'm on the wrong panel because I'm not an alley cat.

(Laughter.)

DR. GOSSMAN: No, I think they were saying they were the alley cats.

(Laughter.)

MS. LEWIS: And I'm not an alley cat or a tech expert, so I represent the New Economy Initiative. We are philanthropic funders who have been investing in developing an entrepreneurial ecosystem within the Southeast Michigan Region, and within the City of Detroit.

I think I'm here on this panel because we've had the privilege of working with organizations that are supporting the development of healthcare-related ventures. I see Skip Simms here in the audience and others, Rachel with the Forum (phonetic) in Ann Arbor SPARK, and of course Baldwin Tech Town. And they're spending a lot of their time and resources in identifying and supporting ventures.

In an entrepreneurial ecosystem, you need business support services. You need mentors. You need capital. You need talent. You need spaces and places. But you also need strategic customer access. And so, what we've been in the business is, of funding those that are providing to the entrepreneur. And I have the good fortune of sitting at a level where I can see all of the different beautiful pieces of this quilt that's happening within this city --

(Technical interference.)

MS. LEWIS: But I have the distinct advantage of seeing all the different, beautiful pieces of what I call these quilted pieces within the City of Detroit and the region around the innovation and entrepreneurial community. And if we can figure out a way of how to intentionally direct that energy, to address some of the health disparities that sit between downtown and mid-town core of the city and the region --

(Technical interference.)

MS. LEWIS: -- I think we'd be in better shape. And I'm going to stop.

(Laughter.)

DR. GOSSMAN: We didn't have that problem until you got the mic.

(Laughter.)

MS. LEWIS: Like I said, I'm not supposed to be here.

MR. RISER: The alley cat strikes back.

(Laughter.)

(Pause.)

DR. GOSSMAN: Well, if Mark Hudson in a prior life -- he's 28 now. I mean, I'm beginning to feel like a millennial; but on the other end, like I've been around for a thousand years. I'm Patrick Gossman. I'm the deputy CIO of Wayne State University, and so I'm very much rooted in information technology, networks, and computing. But as part of my job, I interface with the research side of the house, so I get involved with a lot of the work there at the institute, and a good chunk of that is on the medical side.

But the other part of me works on managing nonprofits, of which Wayne State is a health community telecommunications network. And a lot of what we've done with community telecommunications network and then also partnering with Center for Urban Centers, nursing, medical school, medicine group students, we worry about what we can do in the local community that we sit in.

And so, a few years ago we partnered with Focus: Hope, National Human Services, Healthcare Coordinating Council, and we got money to train up over 6,000 people in low-income households on how to connect and how to make use of the internet. And some of this got down starting out with how do you -- what's a mouse, okay?

So one of the things I've learned in all of this is, first of all, I had no idea what people were facing in some of the local community. You know, they couldn't walk to a library. I had the misconception, well, go to the library and you can get access. Well, they can't walk because it's not safe. They have go to go in a taxi to get to a library and internet.

I am thrilled. I'm going to -- since you're sitting here, Commissioner; one of the things that we've tried to do with this project is get people connected, and we were able to get about 600 people connected for free with some of the stuff we've put on. But we've never solved the problem of affordable connection. You know, any, AT&T, Comcast, none of them really had a decent program at a low cost.

Just recently with the AT&T-DirecTV merger with a little pressure from the lady down in front here I think, AT&T is now going to offer a $10 a

month, which is a critical figure for low income households, for up to 10 megabit of service at the house. That is huge, and it solves one-half of the equation. And, yes, we need to get stronger than that. We need the extra speeds, but that's just huge. That is a leap from nothing to being connected.

I'm here because one of the biggest things we've run into is, yes, the affordable access, but having people understand why they even want to be connected. Whether it's for healthcare, or for public safety, or for getting a job, or any of that.

And that's one of the biggest things that we face right now. And I think some of our panelists here who've been involve with the training side of it, the training is expensive, but when you have to start out, for some people this is in-house. That's one of the nuts that we need to crack here so we can move this city forward.

MR. BEASLEY: All right. Thank you very much. I've got a general question I want to throw out here, and it's sort or relevant to my background being a local Detroiter. And I was pretty, you know, much sort of upset this morning when we saw the ratings as it relates to literacy in the City of Detroit. The new scores that came out says that we still have a

long way to go in terms of closing the literacy gap.

Now, when we started to think about the implementation of broadband and all the various spin-off applications, what effect does the literacy rate in a city like Detroit has in terms of being able to extend the applications to get the most? And that's a tossup.

DR. GOSSMAN: Well, I'll tell you one of the things we ran into with the project trying to get into digital literacy that, yes, there's a large percentage of the population, and I'm sorry I don't remember the number, who had basic English literacy problems. And then one of the comments this morning about the number of immigrants moving in who don't have good English.

Yes, basic literacy is an issue. And I think we have like five different programs out of Wayne State, for example, trying to tackle that with different communities. And perhaps some of the others here have been involved with the basic literacy stuff as well.

DR. BUTLER: Sure. From a health literacy perspective, you know, as physicians we learn Latin, right, in medical school. And then getting to a point where we are able to bring that information to patients who may have or be reading at a fifth grade

level, you can understand that there's a gap. And then when we talk about cultural competency from a physician perspective, especially with a primary care background where we have many of our physicians that are medical graduates. With the differences with the languages, there's more gap.

And so, what we've done at the Detroit Medical Center and with Tenet Health is to make sure that from a health literacy perspective, that health education is written. When I first started, at about a sixth grade level. We brought that back to about a fourth grade level, so it's screened. And we make sure that from a cultural competency perspective, that the words that we use and the ability to explain disease processes and how to take medications is very simplistic.

But what I also want to say, when I say that, yes, the literacy rates are somewhat astounding. But also, there's a high level of people in our community who can really understand and are much, much more intelligent than the paperwork says.

What we really need are physicians, healthcare providers, who sit down, take the time to talk to patients from a health literacy perspective like they're members of our family. Ask them to give

it back to us. We teach it, and they teach it back. And then at the end of the day, they understand it. The ability to read on a 12th grade reading level actually is not a factor.

So it's really the personal relationship and taking the time to sit down and talk to patients, and making sure that they understand. And then utilizing technology.

What we found was meaningful use, and I'm sure many people in the audience know about meaningful use. It's a way for healthcare systems and physicians, providers, to utilize the electronic medical record to be able to get incentives because of the inability to understand writing. From a safety and quality perspective, we know that when we use the electronic medical record and the individuals can read it, then the number of medication errors and hospital errors go down.

And so, what we found at the bedside is that many of our patients who come into our hospitals, and their family members, have access to the smartphones. If they are over the age of 70, 80 years old, their grandkids know how to use it. And so, they have access to it.

And so, what we've found and what Drexel

University just released a paper on is that in the urban community, it's not necessarily lack of access to technology. It's looking at the right type of health information and partnering with some national names or names that individuals in the communities trust.

So when, hopefully, when DMC pops up on the smartphone, they trust that name, and we partner and are able to give pieces of information that they would be able to understand and teach back to other people.

MS. BUSH: And I'll just add a bit from the population health perspective. Let me say, first, that when Paul and I first talked about me being here, one of the things I said that was exciting is that, you know, a lot of times I don't see these questions being asked until a project is way down the road and a disparity has been created. And then we go, "Uh-oh, we've created a disparity."

So to be asking the question right up front, how is broadband and technology going to either close that gap or if it's going to broaden it and what we can do to make it better, make it accessible to everyone.

So let me start off with literacy, relative to just English as not a first language. What I saw

during the H1N1 epidemic, because from the population health perspective, we're not talking about bedside or patient one-by-one. We're talking about getting information to hundreds of thousands of people all at once. And we were required to be able to communicate with people in every language that they presented in.

So if you can imagine, at all of the sites that we're at, we had to have the written material in at least 20 of the major languages, and one of our sites was in Hamtramck where there's a lot of different languages spoken. We had to have access to the call line, where you call up the language line, and they are able to translate.

So I can just see that there's probably an opportunity there for technology to improve even that. Because, I mean, we were there with tons and mounds of paper, but to be able to just, at a click of a button, be able to transmit to whatever device they may be coming in there with, into their language, that might be an opportunity for how we expand.

I agree totally with Dr. Butler. Many of the people that we see, they have smartphones. Now, the flip side of what we see, though, is that the smartphone may be on today, but off tomorrow. And so, that is something that we do have to keep in mind, and

whether or not that smartphone is only working if it's an area where you have free WiFi, and that it does not have a program, you know, package in and of itself. So, there's still some work to be done there. But I also see that it can really help as it relates to literacy.

We also try to keep everything at a fourth-grade level, and we want people to become more literate. However, when you look at even packaging instructions, there's a lot of pictorials, and when you re using technology, you can also have things that are in diagrams so that people can understand better how to take medications.

What I found is that when people are in our office and we're explaining things to them, they're saying, "yes, yes, I understand." They may sometimes believe that they understand or they may not want to admit to you that they don't understand. However, if they have a piece of technology that when they go home that they're able to refer to it, especially if it's audio, they can listen to it because some regimens are very complex.

I started my career when HIV was first on the scene. It was a very complex regimen. Now we're down to one pill a day, but it used to be some 20

pills a day, some with meals, some without meals, some refrigerated, some. There's a lot of things to try to understand. The only thing we had in our arsenal at that time was watches that beeped.

DR. GOSSMAN: If I could add, on the smartphone, I was just given a figure of 17 percent, the number of people who have smartphones with data packaging. And I think one of things for us, as much as we're into technology, we have to use what people have. And if they've got a flip-phone and they can do text messaging. I mean, I love the thing I heard this morning. Was it Dr. Gibbons who was talking about that? And that's great. In church, everybody pull out your flip-phone and text to this number.

So using what people have I think we really need to look at that. And, in fact, I heard somebody yesterday talking about that their hospital is "Three C's" come in, connect, call. However you can get to us, get to us.

And so, I think we can look at the future and see where we want to go in broadband can certainly provide an awful lot of access. And all you have to do is say, okay, everybody in here, shut off your cell phones, close up your laptops, and you stay that way for 24 hours. We'd all panic. Oh, my god, you know?

Well, most of us I think would, and that's the world that people live in.

So, yeah, we're trying to get people into that, but there, you know, that's why we're here to figure out how to.

AUDIENCE MEMBER: Can I ask a question? For like, say, a hospital, right, or even a school in the city, right? If you go into a lot of these facilities currently, you still cannot use your cell phones, right? And the hospital is built to meet standards for a new wing and a new tower, and it's built to repel where it, it keeps it in and keeps it out. And/or it's built like a bunker where your phone does not work.

How do you guys address the inability to communicate within a facility? Because that's huge.

DR. BUTLER: Sure. There are locations at the Detroit Medical Center, primarily at Sinai-Grace Hospital, on the ground level where our operating rooms, and a lot of our radiology is located. And we don't have the great access for broadband and for iPhones or for technology, but we still use pagers. We have pager capability.

We have just put together a security alert. And when there are alerts that need to go out to the

entire hospital, Code Red or a Code Black alert due to the weather, there are four different ways that our safety officers have put in place to be notified. One is via cell phone, the second is via pager, third is via email, and the fourth is picking up and calling those suite members or those executives, those directors who need to be called right away.

And so, you know, in some hospitals on the telemetry units they say, don't use cell phones. Just a couple of years ago, we took all those signs down. We have a new lobby, and in our new lobby and in our ED, and in our ICU; we have full access. It's the older buildings, which we still have some areas, that we can't access. But it's making sure that you use all of the ways to communicate to individuals for emergencies.

DR. GOSSMAN: The straight answer to the question, "what do you if you can't get a cell phone signal in a particular place?" Distributed antenna systems. Unfortunately they're costly, and this is something that we've had to look at. Who would've thought when we got this new buildings, you know, energy efficient and what have you that the windows would kill indoor cell phone activity. And that's one of those things that you've kind of discovered.

And so, yeah, it is a problem. And, yeah, one of the things we have found, you may not be able to make a phone call, but a text message may get through because it doesn't require as much bandwidth, but, yeah. And, you know, at one point in time the phone companies would actually build distributive antenna systems inside certain areas because they wanted your business, and that era I think is over. And so, we either have to build them or not.

Now, there's some work being done to combine WiFi and distributed antenna systems so that you can have cell phone and WiFi in buildings, but, you know, I think we can talk more if you want to on that.

AUDIENCE MEMBER: Yeah, if any of you guys want to talk about that, that's what I exactly do.

DR. GOSSMAN: So that's why you asked the question.

DR. BUTLER: Yeah, well, we talk about our gaps, right? The purpose of this forum is to really look at where the opportunities are and where the gaps are, and there's still a lot of work to be done with technology in healthcare for sure.

DR. GOSSMAN: So we can talk afterwards.

DR. GIBBONS: I've got a question. You know, we talk about getting services, you know, large

low-income populations and, you know, you talked a lot about cell phones, and that sort of technology. Are there other technologies that are even more ubiquitous than cell phones, that you can think of?

AUDIENCE MEMBER: Cars?

DR. GOSSMAN: No, I don't think so.

DR. GIBBONS: Television? Even in very low-income hours, they have two, three, four TVs, and, you know, we killed the aerial TV, so we have pipes to everyone now, through the TV. Now, somebody Google that.

(Laughter.)

DR. GIBBONS: And we've got TVs almost everywhere. Actually, the Nielsen company reports that through device conversions, so watching TV content on your phone, on your tablet, or on your TV, they can reach almost 99 percent of the population. Still not 100 percent, but it's very good.

I'm just wondering what you think about the potential for delivering services to people in marginal communities through their televisions, not just -- because now TV is interactive, right? The phone company knows how to get you your bill in your language so you know what to pay. So it's not passive TV anymore. I think it's a tremendous opportunity,

and I wonder what you think.

MR. HUDSON: So my only counterpoint to that is, I still think TV is somewhat passive. Because unless you're talking IP TV or internet connected television, it's still a one-way communication. You're not communicating with that. You're not broadcasting it back to the TV station or the content producer.

So you could still have an avenue to reach people through TV, which is probably under-utilized, but as far as being interactive, that's still a challenge. But as we're seeing the way that TV is evolving to internet protocol television, your Apple TV, your Chromecast, all these other devices that really are kind of this evolution phase right now with people really uncertain about where TV is going. We're uncertain at Rocket Fiber, and we're building our own TV platform, so it's something that we put a lot of research into to kind of predict where TV is going.

And we think it is going to be delivered over the internet in the future. It already is today; and it's going to more diverse types of content that you can deliver over TV. But traditional TV, over the air TV is still a challenge. If you're talking about

cable TV or satellite TV, then maybe there's a way that we tap into that, satellite internet.

MR. BEASLEY: Mark, can I ask you a follow-up question to that? The fact that you're building such a high speed, robust, imminent network here, what is your vision of the spin-off benefits by having such a fast medium?

MR. HUDSON: Yeah, that's a great question. So was like an inspiration for Rocket Fiber. It happened in January 2013. We saw fiber went live in Kansas City and the first stories in the medium Kansas City ran were about entrepreneurs who had moved to Kansas City from all over the country.

So from San Francisco, from New York, the traditional startup hotbeds, had moved to Kansas City, which is not a traditional startup hotbed, and -- just to use that next generation infrastructure, people had ideas of being the next YouTube, the next Netflix five to ten years before the infrastructure is more ubiquitous around the country.

So we thought, if it worked for Kansas City, why couldn't it work here in Detroit. Especially as we're just starting to see some of the technology investment happening downtown. We thought it would just throw gasoline on that fire, and that was really

the inspiration for Rocket Fiber.

MR. BEASLEY: Thank you very much. Yes, sir?

AUDIENCE MEMBER: Yeah, I had a question for Mark and Dr. Lewis. As it relates to the target group you're going to offer, are you just going to offer just the high speed fiber, or are you going to offer services that go along with that?

Are you going to, actually going to be looking at doing like a deluxe service, becoming the local exchange in that actual building? And will you offer any kind of help services, as it relates to when someone moves in or gets your fiber. Will it just be the technology; or will some services kind of be wrapped around it as well?

So, someone moves in the building, they get a health and wellness type of portal. They get a fiber type of portal. What type of services had you planned on offering, since you're going to be the fiber provider that you can put any type of content you want in there.

MR. HUDSON: Yeah, that's a great question. So we've always said once we build the infrastructure, the sky is the limit. We can do anything that we can dream up on that type of connectivity.

So day one, we're just starting with internet; TV will be online early next year. We've talked about what additional cloud-based services that we can launch on top of that. So that's where we come into telemedicine, whether it's teleconferencing with your doctor, applications are going to be built right into Rocket Fiber TV. So it's just an app on your television; you open it up and do a consultation with your doctor is case study, one example.

We've also looked at tying it to other things, so if your smart home or your home becomes smarter. I can tell you my own personal story about that. I just kind of went on a smart home binge in the last month. I probably bought five or devices. I now have a smart thermostat. My front door unlocks when I walk up to it. I've got a smart home security system that looks like an air freshener -- not really any difference; it's really just a spycam for watching my dog cause trouble while I'm at work during the day.

(Laughter.)

MR. HUDSON: So those types of services that can also layer on and sell as a software service, once we have the infrastructure built. So there's a lot of potential opportunity. We know we're not going to do all of it within Rocket Fiber. We're excited about

the entrepreneurs that are going to come in behind Rocket Fiber and innovative on the infrastructure itself.

AUDIENCE MEMBER: This is for you. I know you've mentioned that -- I'm sorry. I know you had mentioned that your meaningful use, and you look for incentives, and this is for the Commissioner as well.

What about community organizations who have the same type of engagement, as it relates to meaningful use? They have individuals enrolled in smoking cessations, weight loss. The community groups, like the 501(c)(3)s and the faith-based, they don't have a place to go seek incentives even though they're doing great work. They have large communities that are actually losing weight, eating better, doing the smoking cessations.

You have a place to go seek incentives. The insurance companies sometimes, they may help an organization like you. But the group who has really has the relationship, they're the last one on the totem pole, and they scratch for every penny.

How do they get some recognition, when they can demonstrate analytics, that they've been doing it, and people are utilizing it, and through technology. How do they find some money to keep their programs

going? And so, a lot of times there are hidden compliance webs.

DR. BUTLER: Good. Great question. It's the partnership. So in the hospital, medicine is not just within a hospital. And what we're learning with healthcare reform is, really it's the ability to keep patients well.

With the Affordable Care Act, we're really focusing in on preventative medicine and making sure that we keep patients who don't need to be in our hospital, out. And it's difficult to say that coming a hospital, a for-profit organization. But what we do know is that there are certain things that we do really well as a hospital, and there are certain things that our partners, our community partners do very well.

So, for example, you used smoking cessation. There are incentives tied to patients who come in, and each time we talk to them when they're admitted about smoking. And in addition to that, physicians talking to the patients about helping them about smoking and documenting that. And as long as we have it documented that that conversation has actually happened, and the nurse has checked off that they're a smoker, and not quitting smoking, and what the risks

are, then it's tied to an incentive.

But, what happens when that patient leaves the hospital and they may need some help with smoking cessation? They don't need help with getting that tobacco patch or the medication to help you curb the craving.

And so, at the hospital we focus sometimes just on those patients who come in, but what we're starting to do is reach out into the communities and partnering with different organizations like Greater Detroit Health Council and other organizations that our community directors speak to and are in contact with to make sure that there's a continuity of care. There's only so much that we can do and that we are reimbursed for in the hospital.

But those partnerships and aligning with our community resources are paramount to our success once patients leave.

AUDIENCE MEMBER: You mentioned Michigan Human Services, and now they have some programs, and they have what's called a HealthNet. And they have parents as well as family members and children, and they've done some very unique and outstanding things as far as engaging that parent because they see them every day.

MS. BUTLER: Absolutely. That caregiver.

AUDIENCE MEMBER: Yeah. And so they're searching for funds, and I just want to know, where can they go seeking incentives -- the hospitals can go to CMS and Health and Human Services -- where can they go seek incentives to continue their work?

COMMISSIONER CLYBURN: So I'm hoping some of those examples that you give, there are other helpful sort of portfolios where things are happening. Like, Doug mentioned one company that is about to offer some different and more affordable services.

There's another company that has a couple of years on them. They have been partnering with other groups in the community doing certain things. You know, maybe that's a type of model where different companies, different healthcare organizations can follow and have different either trials, or programs, or whatever, and see what works, because, again, it's going to be incumbent upon that our unlikely fellows, or I should say partners. I'm a political candidate, so we use those things that might not go over well.

(Laughter.)

COMMISSIONER CLYBURN: But, you know, those alliances that we hopefully can bring about or encourage will come from different places. The

traditional model, respectfully, has not worked effectively. And so, when do we do so, I really am hoping some things that we see in other portfolios will be replicated and expanded.

I wanted to talk about -- usually don't mention companies online, but you inspired me to talk about that because, again, it is not just about health. It's about wellness.

MS. BUSH: I'd like to use an example, though, because you spoke about faith-based organizations and various different organizations that are doing the work on the ground. So I'll tell you about a partnership that occurred right here in Detroit. The partnership is with the Coca-Cola Foundation, so usually people gasp, "oh, my god, who partnered -- " Well, yeah, but the Coca-Cola Foundation, they wanted to do something around reducing childhood obesity.

The Institute for Population Health believes in play, getting people out, children out with physical activity. What kid wants to hear about their BMI, and reducing their caloric intake to 500. What they want to do is run, jump, play -- or should, and they want to use food as fuel and to burn energy. So we were able to get that grant, but we can't do it

all.

So we partnered with 40 churches in the City of Detroit. You have the kids. Most of the time your parking lot is empty except on Wednesday for Bible study and Sunday for church. We needed the kids playing outside during the good weather months and inside during the cold weather months, so the kids would be playing.

We paid for play coaches. The church had to identify play coaches, because when children say -- when you tell a kid, "go outside and play," and they say, "I don't know what to do, I'm bored," they really don't know what to do.

They've lost the passion for play, the language of play. They don't know skipping, jumping, four-square, relay racing. They knew none of that. And many of the coaches that the churches identified had to be re-taught all of these activities so they could have structured play activities. Thereby they burn calories as opposed to storing them, and they were up moving.

So, we had no expectation that Blue Cross/Blue Shield, or Molina, and I'm just naming those because those are the two that those are the two that -- were set up to pay for that. So we sought a

different partner, because childhood obesity needs to be addressed.

And so, I think that I'm saying the same thing that was, you know, said earlier. We have to broaden our mind beyond, you know, some of the traditional players -- payers, I should say -- and the traditional activities, in terms of reaching out to other partners.

Certainly we could've done some, but we could not have reached the same number of children and families that those churches reached over the course of the year.

AUDIENCE MEMBER: Do you put tools in their hands to implement those kinds of activities?

MS. BUSH: Thank you for asking. That's what we did. With the grant, we also bought jump ropes, balls, those kinds of things. Nothing expensive, no, not whole steppers or any of that. It was, you know, it was balls and jump ropes.

COMMISSIONER CLYBURN: It was old school.

MS. BUSH: It was old school. Thank you, Commissioner. Yes, and it was hula hoops. That's the one I was trying to think. And if you haven't tried to do that in a while, it's not as easy as you think just because you did it as a kid.

(Laughter.)

MS. BUSH: It takes a lot of coordination and energy, and it burns those calories. So we did hula hoops, balls, jump ropes.

COMMISSIONER CLYBURN: And it's not just me -- because I tried.

(Laughter.)

COMMISSIONER CLYBURN: And I used to be very good. Things have changed.

(Laughter.)

MR. BEASLEY: Let me ask a quick question as it relates to some of the emerging technologies that we're seeing out here with consumer devices, like FitBit and other biometric devices there. How do we see that interfacing in with broadband and connecting into the medical, so we can do more proactive assessment?

MR. FREDERICK: Yeah. Not so much on the healthcare side, but better understanding how those devices are being used in the community, and what the -- the current level of understanding of those devices. Because when you start talking about Apple TV and the other types of applications and hardware that come along with some of these really innovative things, when you're talking about video communication

with your doctor, you're talking about being able to use Skype and other applications.

So it goes beyond basic digital literacy when we're talking about how to, you know, how to use a mouse. Now we're talking about teaching a whole host of other things. So one of the things that we tried to do through our community engagement program is to, again, be very precise in how we're assessing that community's digital literacy.

We don't just ask them about, you know, "do you know how to use a desktop, a laptop, a mouse, and a keyboard." We also include questions about, you know, "how comfortable are you with wearable technology, or IPTV, or VoIP applications."

And, again, one of the very first communities that are participating in our survey research to do this is Spartanburg County, South Carolina. And that is playing to the host here a little bit since she's from South Carolina.

(Laughter.)

MR. FREDERICK: So I could go into my research and tell you, you know, how comfortable people over the age of 50 using wearable technology. How comfortable are they with the VoIP. What kind of broadband connection do they have at home? We can

look at it by income. We can look at it by geography. We can also look at what libraries and community service organizations might be able or available in that community to host training on these different devices.

So before we go through and implement some of these great and remarkable cutting-edge ways of getting healthcare information out there and education out there, you know, it's imperative to better understand the community that you're going into. So that you don't run into digital literacy problems down the road as you're trying to innovate your programs.

DR. GOSSMAN: And I wish you would've picked a different age than 50.

(Laughter.)

DR. GOSSMAN: But I do have a comment, but you first.

MS. LEWIS: Well, I don't know if this may get us a little bit off track. But I'm listening to this conversation and we've gone from literacy, digital literacy, to microfiber. And I'm looking at who's in the room from representatives of hospitals, to service providers, to people that support entrepreneurs.

And in this region, there's so many

intellectual assets that are so strong, in terms of IT and in terms of healthcare. When I look at the entrepreneurial ecosystem that we've funded, you know, a quarter of the people that are being supported are in the healthcare life science space, another quarter in the IT space. Yet there's a city that sits in the middle between Ann Arbor and downtown, of individuals that have all these health disparities, and a lot of these disparities that you guys are describing.

What I don't necessarily see happening yet, but I think would be an opportunity, is to better inform the innovators with the real issues of the citizens. To more intentionally shift -- because right now the entrepreneurs are focused on their solutions, right, that they're passionate about that's going to build their companies.

What if we could focus that interest and add to that the information that's being informed by the community of the issues that they need to be addressed, and then to have them go back to that in an intentional way? Not to disrupt or derail their progress, but to add to it.

And I just feel like there's this huge thing that's missing, and an opportunity that we might miss, if we don't begin to have that conversation of how to

better connect innovation and entrepreneurial assets that we've been growing here in this community for the last 10 years -- there goes the mic again. All right. That we've been growing over the last 10 years to the issues that sit within the city.

And it's not just health disparities. There's transportation issues; right? There's food access issues. There's health issues. And the universities that sit around this city have all the intellectual capacity in the world to address them. They already are. U of M, with advanced transportation. You know, Wayne State with healthcare. U of M with healthcare, Michigan State with food. They're all right here.

So let's figure out a way to be better informed. To connect the message that you have with the patients you're dealing with, with the data you have to the innovators like Mark here, to really begin to direct their innovations toward addressing those solutions. Because otherwise it's like this big boiling -- I get overwhelmed sitting up here listening, you know.

It's like a big boil the ocean type conversation. Where do you start? And is there some place that we can start, in a small way, to begin to

build that bridge between the innovator and the person having the issue?

DR. GOSSMAN: What she said.

(Laughter.)

DR. GOSSMAN: I was going to basically say, it's not so much what we see emerging now, but I would like to see something where we haven't talked much at all about what I call senior citizens. I'm over 60, but I don't believe I'm there yet. But, the ones who can't deal with these small screens, that can't deal with the itty bitty buttons, that don't know what a mouse is.

We need to create, and maybe there's been more work done here, but I don't enough, on really simple, easy to use devices that just do, that just do, that just work, so on the healthcare side or whatever.

And, yeah, there are some people we're never going to capture, but I think there are a whole group of people that if we developed the right things. But I think there was a comment earlier today about, well and it was from our folks from public health, yes, right over here, believe it or not, saying, "hey, where are the people from the community to tell us what they need." And so, yeah.

And some of that is going on in different places. Our Institute of Gerontology spends a lot of time. There was a lot of talk today about the community health workers and what they know. So tamping that and bringing it back, we need to maybe put together a forum to match that up.

MS. BUSH: However, I do have to say, we do needs assessments, and then needs assessments sit on the shelf. Or folks who are designing things don't know about these needs assessments and don't utilize them. Because from the other side of the coin, you know, how many times are you going to keep asking the community the same question and then doing what you want to do anyway?

So, you know, there have been forums where it is the community. There have been formal needs assessments where people are saying, "this is what I really need."

But I think what happens is that when we hear what people really need, we feel overwhelmed and scared, and we go back and keep doing what we've been doing. Because the things that they say they need are many times much more complex to address than what we were taught in medical school, the school of public health, IT. And how do you -- it really has, a lot of

different things have to be brought together because people are not experiencing their lives in silos. So how do you convince --

And I know this is my issue because I do believe in health in our policies and looking at everything from a health lens. So when I hear "transportation," I think "health." When I hear of a food desert, I think "health." When I hear "education," I think "health."

Because all of these things are going to impact your health right down your zip code, which I see someone in the audience that did the research that showed your zip code is a better indicator of how soon you'll die than your genetic code. We did that work right here in Detroit. She worked with us on doing that.

So these are very complex things, you know. So we ask the community. We do these needs assessments. We put them in binders, and we run off and don't utilize them. I'm not saying we do it enough, maybe not; but it has been done. But then we go and do what we've always been trained to do, or we don't get it into the hands of these very young men sitting and saying, you know, this is what people are saying they need. So if you're going to do some optic

blah, blah, Game Boy --

(Laughter.)

MS. BUSH: -- then these are the things that people are saying that they need.

COMMISSIONER CLYBURN: I think that this is so appropriate, and if you'll allow me to be a little rude, you know, to end that. You know, people recognize gain, and if we are truly insincere about some of the things that we're addressing, that will be, you know, will be figured out very quickly. But, again, you're here because that is not your makeup, so I don't really --

And as a part of that makeup, I'm a PK. I jokingly say I'm a PK on a politician scale. So, you know, because of that I want to recognize one politician I hope who will embrace that because it's not a negative, Councilman Dave Leland, who represents the 7th District in your area. And he is a member of a task force --

(Applause.)

COMMISSIONER CLYBURN: -- who's addressing these focus areas. And, Councilman, you might not have been able to take part in this entire morning and afternoon sessions, but what we have committed to do whether has been voiced by the room or not. This is

not the last time or the last series of conversations and actions that we will take in order to identify.

Again, all of us, time is precious, you know. We have talents in order to deliver to these communities. And we want to make a difference, and we're here because we want to have the tools needed and the partnerships to be formed in order to do so. That exists in this room.

So when we come back in the not-so-distant future, you know, all of these betas and all of these -- remind me --

MS. LEWIS: Proof of concepts.

COMMISSIONER CLYBURN: Proof of concept -- I always have to ask her.

(Laughter.)

COMMISSIONER CLYBURN: Right. She's like what are you talking about? All of these things, we will have some things on the ground that's inclusive, interactive, you know. Our communities are not going to accept the "solutions" if they're not a part of it.

In utilities, we have this theme, called sort of a "dig once." And when you, the most expensive thing to do, and you see it outside is to dig things up and be disruptive from that perspective. It's expensive not because of the money you expend,

but the inconvenience of the rest of the experience. You want to do that one time.

And that means all the variables that are needed, all of the leveraging that can be realized from digging in the ground, all of the infrastructure, fiber and all that. That needs to go all at one time, so it's going to take a community saying, "what all do we need? What do we need to do while the ground is porous to put it down before we lay that cement, or it might not be cement." Whatever we lay on top of the gravel. I don't know. You guys know better than I do.

But whatever we drive on, you know. Asphalt.

MR. HUDSON: Potholes.

(Laughter.)

COMMISSIONER CLYBURN: Whatever. Yeah, thank you. Oh, I was right. Thank you. The new stuff is concrete. Thank you. That we need in order to make a difference.

So I want to thank all of you. This is, I promise you, the last time you'll hear from me, and all the members of the task force, and all of the people here at TechTown and Wayne State that have truly made a difference, and the panelists, all of

you. This really is going to be a part of our report that you will see. We will let you know what we'll birth and continue to be birthed from this.

You will have an opportunity to see our intermediate product. You will be able to comment on it, and then we will produce a final product that hopefully will be a part -- not hopefully -- that will be a part of a blueprint for better outcomes. So thank you to our most able emcee. Moderator?

(Applause.)

MR. BEASLEY: Commissioner, one thing I'd like to share with you here is, as a native Detroiter, we've seen so much disruption occur in the form of democracy. In this town which is disenfranchising people and is acting as an inhibitor to have full impact of broadband and protect the community.

Case in point. Typically the percent that the city receives for a cable franchise, it wants to fund public education and government access. In this city, currently, there is no education access or public access. And the downfall of that is, it eliminates a venue like this from being able to reach out to the general public.

And at some point in time we'd like to have a conversation with you on how, in the name of

democracy, we can put these put these pieces back together so people can get a voice. And that was one of the things we were really responsible for at the Cable Commission was to have all those elements occur. But in the name of politics, you've got two government stations, and the people don't have access. And in a city that needs help in literacy, we need to use broadband to reach out and solve that.

One of influences was a gentleman who's gone on to glory, Dr. Frederick George Sampson, and he would say, "Life is not a problem to be solved, but an experience to be lived." And one other point he would always make is he would say, that it's all right to be ignorant. We're all ignorant to something. All ignorance means is you don't know. He said, it's all right to be ignorance. It's just stupid to stay that way.

And so we need to know --

(Laughter.)

MR. BEASLEY: All right, let me go down, and I'd like to have each panelist leave us with their final comments, and that's the problem we have when you have this kind of able panel. There's so little time. So if you could share your parting comments.

DR. BUTLER: Sure. Just really quickly I

think the one, with running a hospital, the main thing as a physician and a scientist that I'd like to see happen are action points at the end of each meeting.

And so, then we bring up the agenda from the last meeting, and we start with the action points from the previous meeting. And we hold individuals accountable to make sure that we're not just sitting in the room talking, and that eventually we start to get to a point where we have some traction around certain issues or certain gaps that we've identified.

So I'm hoping, that's how I'll end, that we'll have action points and that we'll have action items. And that this conversation will continue, and the partnerships that individuals have talked about, some of the big organizations that here in the city and that surround the city will start to really begin to happen. So I'm hoping that we'll be able to continue the conversation, and not just talk. It has to be some action.

MS. BUSH: I would love to have more conversation about how technology and broadband could really impact the social determinants of health, and that's something that we haven't had time to talk about today. How are we going to deal with things like stress, with social isolation, with the impact of

racism, all of the things that we know contribute to better or poorer health.

And so, these are not easy conversations to have; but if it was easy, everybody would be doing it. And one of the things that my hero always says is you can do hard things. He always reminds me of that. So just because it's hard, doesn't mean that it's not doable.

So how can these technologies really start to address some of the social determinants of health? And I think I heard a little bit about it when you were mentioning Care Connect. Because just having people who are able to talk to people throughout the day, with the project that we're working on, some of them are calling EMS 20 times a day. It's not because they're sick. It's because they're lonely. And it's costing a lot of money, and it's impacting on real critical health runs, or because they're scared.

So that's a conversation I would love to be a part of in the future.

MR. FREDERICK: You made a couple of good points earlier about how listening to the community and their needs is absolutely critical, and I couldn't agree more. When we're discussing broadband and it's on the community, it goes well beyond health. It goes

well beyond education. It goes way beyond economic development, and the facilitation of government services, and all of these things that really make up the intertwined fabric of a community.

So I think that the one thing I'd like to leave is that when we talk about improving broadband, improving health, improving technology in the community, it can't just be one sector coming to the table. It has to be all of the sectors. Because all of these things are complicated, and they all interact with each other.

And the only way to overcome any of these barriers that we find in the community; whether it's infrastructure, whether it's adoption, whether it's affordability or awareness; is to really bring all sectors to the table and make sure you can understand the needs of each of those sectors. And coupling them with the residents, and businesses, and institutions in the community to come up with a plan for comprehensively addressing how technology can impact a community's well being.

MR. HUDSON: I'm going to make a plug for our seniors and talking about something kind of along the lines of what you were talking earlier, Pam. There are so many issues in this city. We often try

to boil the ocean.

One of the low-hanging fruits to me and one of the reasons I was working on Care Chat prior to Rocket Fiber was; care for our seniors is such an under developed space from a technology perspective, in my opinion. Both my grandmas were in assisted living. Almost no technology existed in that space. And we're looking the baby boomers, or Patrick's generation --

(Laughter.)

MR. HUDSON: -- getting ready to retire. Sorry.

(Laughter.)

MR. HUDSON: You know, I saw a statistic a few years ago that said the number of people that are 65 and older in this country is going to triple in the next 20 years. People are living longer. They need more care as they live longer. There's technologies that exist in our smartphones that have now been boiled down to watches. So when we talked about wearables earlier, they can make a world of difference for a senior.

Something as simple as a fall monitor that a lot of folks, even in the City of Detroit, I'm sure don't have that can alert us to when an individual has

a fall or some accident. We can monitor vitals remotely. These are not things that are, you know, space age technology that exist today. Those are things that we can get out in the hands of our seniors so that someone is looking after them.

In the case of my grandmas, it took our entire family, and it's continued to take our entire family to take care of them. It's a full-time job and a half, and luckily they have the support structure in place. Not everybody has that, so we as a community need to come together to make sure that seniors are taken of, in a lot of cases where they don't have a broad family, broad support network.

MS. LEWIS: Thanks. I think my closing comments are just, it really goes back to, I said it before, where do we start? And I feel like there's an opportunity again to find a structured way to hear from the community in a way that's not overtaxing them, in a way that's not asking the same questions over and over again. And to your point, finding a way to open the file cabinets of all the research and assessments you've done to inform the ideas that the innovators have.

I feel like also, especially as it relates to digital literacy and access to broadband, we talked

about affordability, and we talked about training, and relevance, and making it relevant for people to use. What we often don't talk about is who's going to fund this stuff. So on the affordability side, you know, the FCC has done a tremendous amount of work to provide funding there. On the training and relevance side, you know, the federal government is not going to go to that level.

And so, my challenge is, too, with the subject of digital literacy, how do you make the case, for philanthropy, that this is the next focus that they need to move their dollars towards? They've done it in terms of job creation and the economy. They've done it in terms of, you know, arts and culture, they've done it in terms of community health.

But this whole notion around digital literacy, someone needs to start doing the work to make the case that goes to philanthropy to help move some of those dollars to fund some of these efforts, particularly in the area of training and relevance that can be used to make broadband more accessible to under-represented communities.

DR. GOSSMAN: I wish I had the answer or the answers.

First off, I want to say thank you to the

FCC for pulling this together because for one thing, yes, I was ignorant about a number of things. I've learned a lot just in the last two days with these sessions. And I agree with Dr. Butler, okay, with her action item or items.

That's a pretty big ocean to try to really tackle. You know, I look at the different groups. We started out yesterday with just digital inclusion focusing primarily on low-income households. Some of the greater advances, though, that are good for a large chunk of the population who can afford them and who will afford fiber to the home, those are also really good. So we have a number of different things, different audiences.

What I would like to suggest and ask: people signed in, so we have their email addresses. Could we send out an email to all of you and ask the question: "Who'd like to be part of a planning group to set up our next sessions?" We don't have to rely upon the FCC to do that. In fact, in a lot of the things we've discussed, there are certain things they can do, and actually they've asked us what they should do to help.

I'll stick my neck out and say we'd be glad to host it at Wayne State, or we could host it here at

TechTown, or we could host it any place that somebody wants to host it. But I think we need to put together a small group at least to say, "Okay, let's have our next session." And I'd be glad to worry about trying to help with that.

MR. BEASLEY: All right, thank you. Once again, thank you, Commissioner Clyburn, and thank you, Mr. Riser, and thank you, Wayne State, and thank you all for coming and attending.

(Applause.)

(Whereupon, at 3:22 p.m., the forum in the above-entitled matter concluded.)

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REPORTER'S CERTIFICATE

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CASE TITLE: Broadband Health Tech Forum

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I hereby certify that the proceedings and evidence are contained fully and accurately on the tapes and notes reported by me at the hearing in the above case before the Federal Communications Commission.

Date: October 28, 2015

Karen L. Banks
Official Reporter
Heritage Reporting Corporation
Suite 206
1220 L Street, N.W.
Washington, D.C. 20005-4018