JAKE SIEWERT

This is Exchanges at Goldman Sachs where we discuss developments currently shaping markets, industries and the global economy. I'm Jake Siewert, Global Head of Corporate Communications here at the firm.

Today we'll be talking to Dr. Michael Rendel,
Goldman Sachs' very own Global Medical Director
about how a firm like ours responds to the
coronavirus pandemic and what we all can be
doing on the individual level, including tips for
staying in good shape mentally, physically, as
more of us start working from home. Dr. Rendel,
welcome to the program.

DR. MICHAEL RENDEL

Thanks for having me. Happy to be here.

JAKE SIEWERT

Micahel, beyond Goldman there's some very, very common questions we're getting about the overall

state of what's going on with the virus from our clients and others. So, how would you describe the state of testing? It's different region by region, but maybe start with the US. Why has it been so hard to get people tested and why have the protocols varied so widely region to region?

DR. MICHAEL RENDEL

Alright, so let's start with the US. Unfortunately, in the US, the testing kits that the CDC were developing and manufacturing did not, ended up being faulty and so they had to sort of scrap all these kits that they had and then start all over again. And so, because of that, we got behind in having enough testing kits that we anticipated we would need when the coronavirus reached the US.

We've been ramping that up and I think key to also that is being, allowing commercial labs, like Quest and LabCorp, for instance, to start creating these test kits and being able to perform the test because, we're used to using commercial labs and they have a huge capability of doing many, many, many tests at the same time and they have good quality control. So, that's going to be really to our advantage.

So, what we're going to see over the next few weeks is much greater access to testing. Part of the issue, ironically, is it won't so much be the lab being able to run the test but figuring out the right way for doctors and other healthcare providers to obtain the swabs so you can submit the test. We don't want lots of sick people with COVID-19 coming into emergency rooms or doctors' offices where they're going to spread the infection to other people, particularly other people who might have healthcare condition, health conditions that will make it more dangerous for them to get infected.

So, hospital systems and practices are figuring out now what is a safe way for people to get tested in special areas. They've done it in parking lots. And once that gets ramped up and there's more access to testing, we're going to have a better idea about what this disease is. Right now, because there's so few kits, we are testing people mostly who have more serious disease, whether they're in the hospital or more serious disease at home. By being able to open that testing, we'll have a better idea about milder disease and how prevalent that is compared to more serious diseases and we really get a better sense of how transmissible this is and, again, also about how serious and even the mortality rates, they'll be easier to understand what they truly are by doing more widespread testing.

So, that's in the US. The same is really holding true for a lot of these other countries that also don't have enough testing kits. Some of them have very

strict criteria for testing. So, it's hampering our ability globally to really understand the spectrum of disease that we're seeing.

JAKE SIEWERT

In another area the people are focused on, rightly, is therapeutics. And what's the likely course of therapeutics for COVID-19?

DR. MICHAEL RENDEL

Well, there's a drug right now that's undergoing clinical trials both in the US and outside the US called remdesivir. This was an antiviral that was developed, I think, a few years ago in the hopes of treating Ebola. It didn't work for Ebola, but it looks promising on an anecdotal level in a couple of case reports that it's effective against this coronavirus strain, SARS-CoV-2, as they call it. So, there are a lot of clinical trials ongoing for that. I think that's probably our best hope for a treatment.

There have been some other treatments that

they've tried, combinations of Tamiflu, which is an influenza treatment and an HIV treatment. Those are really anecdotal reports and I'm not really sure whether or not those are moving forward on a more widespread basis.

JAKE SIEWERT

And, of course, vaccines. , obviously the vaccine will be late for the outbreak, but what's the prospect of having a vaccine in place that would take care of this in future years?

DR. MICHAEL RENDEL

Well, most experts are saying a vaccine will take a year to 18 months to develop and the reason for that is, vaccine trials, they need to be safe and effective. So, phase I is understanding a safe dose and whether the dose that they've developed is safe in people. The second is what is the effective dose? They have to figure out exactly the efficacy. And then the third is large-scale clinical trial with lots of people to see

exactly how people mount an antibody and whether or no they think that's going to be effective.

That just takes time and you have to get enough volunteers. And so, really, I think it's only reasonable to expect it to be 12 to 18 months before we get a vaccine.

JAKE SIEWERT

All right, and finally, we've seen, I've seen in Italy some, just the healthcare system getting overloaded. You talked earlier about why social distancing is so important for the healthcare system as a whole, but haven't the state of the healthcare system, I guess here in the US with, in terms of hospital beds, the machinery that's needed to treat this and also just the ability of healthcare professionals to function, in this environment.

DR. MICHAEL RENDEL

Yeah, I mean, no healthcare system is going to have enough beds to treat as many people as might be predicted in any large pandemic, this one or any other one. Ultimately, if there are enough sick people, the healthcare system will get overwhelmed. It's not built for a pandemic. And so, we really need to be careful about our resources. Part of the mortality of a pandemic isn't just people who die of the infection, but also people who don't get access to care for other reasons because the healthcare system is overwhelmed.

So, I think the things that we need to do, are both,
A, protecting our high-risk patients, so we're going
to have a more difficult time and a more serious
disease to make sure they don't
get infected so that they don't need the kind of
intensive treatment in a hospital or healthcare
setting that will take away from other people being

treated at the same time.

And then the second is making sure that, again, we have the right staff in place, that people are using the right protective equipment, there is, it's important that people use gowns and masks. There is very standard criteria for respiratory droplet infection, airborne infection, and so our hospital systems are ready for that on a route basis, but they're preparing now and gearing up for an overwhelming number of cases, and so we just have to do our best to be patient and make sure that we're not overwhelming our healthcare system with other things that we can put off in the short-term to make sure that they can focus on the needs of people who are seriously ill.

JAKE SIEWERT

So, obviously this is a moment that no one wants to experience, but that you and your team have

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been preparing for, for a long time, so how does a global firm prepare for a crisis like this?

DR. MICHAEL RENDEL

Well, every firm has a business continuity team where they spend time preparing, planning, testing, what we would call "peace time" and during peace time we're looking at not just,

, our capabilities from a technology standpoint and from a people standpoint, but our job, well, on the medical side, it's from a medical standpoint, how we prepared. So, we look at things like, do we want to stockpile medications? For the most part, we don't really do that, nobody really does that because we don't want to be in the business of providing direct care to our employees.

But we look at other things like what kinds of other strategies we would put into place to help mitigate any kind of outbreak should it occur; we want to understand our healthcare providers who are on site as some of our locations, how are they going to deal with something that would happen, whether it be a respiratory infection, or different kind of infections. Ebola, for example, is a contact infection, it's not from respiratory. Making sure they're well protected, they would know how to deal with this kind of event in the workplace, how are we going to provide the right treatment and the right information to people? That's sort of what we do on the medical side as part of the larger business continuity team when they plan for an event such as this.

JAKE SIEWERT

So, increasingly, our firm, like many others, is encouraging many employees to work remotely. In fact, today here, there will probably be more people working from home by a long shot than are in the building. So, what's the general strategy behind limiting people in the building?

DR. MICHAEL RENDEL

So, with the coronavirus infection, the key to suppressing this infection is really around social distancing and so if we, they've been finding in China and other places that social distancing has really made a huge difference, so that by limiting contact between people, we limit the number of infections that can happen and that can really make a big difference in the long run.

So, if we look at this sort of an arc of a pandemic, or arc of an outbreak, when the infection get to be a very, very high number, not only is it bad because lots of people get infected, we end up with people with high risk conditions who do poorly get infected and then the healthcare system gets overrun. And so, the key is to push down that arc and make it much lower so that there are fewer infections during the course of an outbreak so that healthcare can be delivered effectively and that we

protect, particularly, people who are at high risk.

And coronavirus hits people over 60, people with chronic medical problems, pregnant women, people who are immunosuppressed. We want to make sure that those people are protected specifically because they could have a more adverse outcome compared to say young people. That's different in different virus. Sometimes young people are more infected, or children are more infected. That is not the case with COVID-19.

JAKE SIEWERT

Okay, well, obviously, I should say for our listeners that I'm in one room and you're in another, so you're at home and I'm here in a room by myself, so we're doing some social distancing. Other than limiting the number of people that are actually together in a building, what other preventative measures is a firm like ours taking?

DR. MICHAEL RENDEL

Well, I think one thing that's really important is the messaging we give people and sometimes we have to give it over and over again because we want it to really be impactful. And the most important thing is to isolate yourself when you're sick. We really want to emphasize strongly that in order to help pass it, not pass it from person to person, if you're sick, you need to stay home, you need to self-isolate so that, during your period when you're infectious, you're not really passing that infection to others.

That also means monitor your health, be really mindful of your own symptoms. With COVID-19, the most common symptoms are fever, cough and shortness of breath. If you're developing those symptoms, you want to make sure you're careful to speak to your doctor and stay away from other people who are ill and if you're ill, stay away from others so that you don't pass any infection along.

The other things we talk about, they seem a little bit simple, but it sometimes is hard for people to do it, washing your hand frequently, don't touch your hands to your face, making sure you stay at least three feet from each other, between three and six feet because respiratory droplets travel around six feet and so we stagger our workstations, even when people who are coming into the office, we make sure that they're more separated than we normally would. Hand sanitizer, which is hard to get these days, using hand sanitizer when you don't have access to washing your hands with soap and water. Those are the kinds of things that we're doing, even for people who are coming in, whether they're in, inside the building our outside the building, it's important for them to think about those things.

JAKE SIEWERT

One question we're getting is how should we think about the safety of our workplace? What's the

thinking behind how we clean workplaces and common areas? And what do we know about how Covid-19 behaves and survives in the environment?

DR. MICHAEL RENDEL

So we know that coronaviruses, such as the one that's the cause of COV-19 survive on surfaces for a period of time. The WHO – world health organization – will say we think the virus lasts for a period from several hours to several days. That we know. What we don't know exactly how much that contributes to transmission of the virus and infections to other people. But we want to be cautious. Every public health organization advocates deep cleaning. So what have we done? They understand better what kills this coronavirus, so there are several standard cleaning agents that don't work, so we've switched over to what the recommendations are around cleaning. And that

mostly is ethyl-alcohol products or bleachcontaining products which we know are effective at killing the virus. And so under normal circumstances we've enhanced our cleaning in terms of using these products, being more vigorous about cleaning more surfaces, performing the cleaning more times a day and paying attention to common touchpoints – elevator buttons, door handles, pantry areas, so that where people are frequently touching, we're making sure we're cleaning as best as we can. If there is a case - and you'll see this everywhere, not just at Goldman Sachs – if there is a case of an infection in the workplace, we know that perhaps in that in the area where that person was, and on the floor, there could some virus that remains behind. So that's what we call a deep cleaning, where they really spend an extra amount of time cleaning the all the surfaces, either in that workspace, in that area, on that floor, and we do that the evening after we

identify a case to make sure we're really trying to eliminate the virus on surfaces as much as we can.

JAKE SIEWERT

So, we all have responsibilities here as managers. You manage our health centers around the world. How can managers be helpful in creating a more comfortable and flexible environment as we work through this?

DR. MICHAEL RENDEL

Well, listen, we're all in this together and so the important thing is that we really support each other, and I think as a manager, we always want to be listening to our employees' concerns, but I think especially at this time we want to be extra patient, we want to be checking in with our people, we want to understand if they have, anxieties, we want to understand if they're having trouble being productive or getting through their work, how we can make things easier for them. I think that's very

important because I think that, it keeps us as a team very productive.

And so I think that also making sure as a manager that these precautions we're talking about, that people are washing their hands using hand sanitizer. Reinforcing some of these messages are really important. And then, of course, the use of technology in doing phone or virtual meetings. It's great to use virtual meetings if they're available because you can have some face-to-face contact and some social contact even if you can't be in the room at the same time.

JAKE SIEWERT

So, obviously, for a lot of employees, the vast majority of our employees are healthy today, but it's still trying times emotionally and psychologically. What resources does a firm like Goldman or more broadly offer for employees

in that state?

DR. MICHAEL RENDEL

Yeah. I mean. I think most firms have what we call an "EAP" program, which is called "Employee" Assistance Program", that offers short-term counseling. We do it on Goldman Sachs on site and person to person. We also do it off site person to person and finally we do it telephonically. And so, using, again, a virtual appointment with a counselor, whether it be telephonically. In our case sometimes some of their firms use video visits. It's really important to be able to just speak to someone, express your anxiety, express your concern, get some short-term support. I think that EAP is really important to make sure people are aware of that so they can get the support they need.

We also have an online portal called meQuilibirum, which is a resilience program that we offer. People

can go online, they can do an assessment, they
can understand what their specific stressors are
and then they have online programs to help
manage through that. I think there is a meditation,
I think, part of meQuilibrium. People can actually
just download meditation apps on their phone.
I think meditation is a wonderful thing for us to be
doing. A lot of us, we can't go to the gym anymore,
there are a lot of our physical activities that have
been limited during this period
because of the government-related social
distancing, closing a lot of social activities.

Putting an app on your phone to meditate and spending some time and meditate I think really would help get you centered and those are the kinds of things I think are important. We've tried in Asia to do a few things, some programs. We have some written materials on our COVID-19 website. Sometimes we've done some meditation classes

virtually. I mean, those are the kinds of things I think that keep us centered, and focused and calm. I think it's, keeping calm is really important in this environment.

JAKE SIEWERT

So, Dr. Rendel, you mentioned our locations in Asia. They've been living with it for a lot longer than we have here in the US or in Western Europe. Talk a little bit about the status of our operations in Hong Kong, which has been really in the middle of COVID-19 for two months.

DR. MICHAEL RENDEL

Yeah, I've been so impressed, talking to the Asia teams about how things are going there because what we're just starting to experience now in the US, they've been living with for six weeks. And I think what I'm finding from speaking to them is they're going through all these different phases that I expect that we will go through.

In the beginning, just having some, trying just to adapt to the new environment that we're in, which is this, social distance environment, this work-fromhome environment, so opposite to what we're used to because we're by nature social animals, getting used to that, dealing with school closures, which we're seeing now happening in the US, how do I manage my children at home, how do I work and my children are home at the same time? I'm seeing all these things that they've been able to work through really in an amazing way. The people in Hong Kong and more broadly in Asia have been exceptional when I speak to them and I hear what they're doing.

What's really interesting is I think you sort of go through these phases where the first phase is where this batten down the hatches and get ready and for what's to come and then you sort of get used to what's your new reality, you realize that

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living, working from home and living at home, which is not what you're used to doing, is full-time, 24/7. And so now, as the epidemic sort of lightens up in Asia, interestingly, Hong Kong, Singapore and even China, many fewer cases than we see in Europe and in the US, they're sort of ready and anxious, I think, to go back to

work, to some degree and so we see more people wanting to come into the office, more people getting used to the idea of how do you live in this environment where you're, maybe you're not using public transportation, or you're being mindful of your individual social distance, but they're really this sort of, really anxious to sort of regain coming back into the experience of being in the office.

And so, I think we'll go through all that, just like they did, and I'm sure we'll do it just as successfully, but it's been very interesting

psychologically to see how that's evolved over there.

JAKE SIEWERT

Well, you bring up an interesting point. You and I spend a lot of time trying to develop a global message for this firm, but honestly, it's very hard to have a uniform approach when the regions have very different experiences. So, talk a little bit about the trade-offs between trying to have a consistent approach for all of our firms and one that acknowledges some of the big regional differences right now.

DR. MICHAEL RENDEL

Yeah, I mean, I think that it's really interesting that all the different methods of government is putting in place and we have to react to that in every region that we're in and so travel restrictions, temperature screening, isolation policies, they really vary from place to place and while, for instance, wearing masks may be commonplace in Asia, particularly in

China and Hong Kong, they're very rarely used in the US and really sort of discouraged as a method of mitigating spread of the virus. In Western Europe and the US, they tend to emphasize social distancing as the best thing to do and so you don't see something like that culturally, that's sort of a difference we see between Asia and Europe and the US.

On the other hand, childcare is something that we are mindful of globally that everybody has to deal with and how many places schools are being closed.

The work-from-home environment is sort of the same. Again, it's that sort of major, reducing the ability for people to interact with each other. And so, in general, although we apply the same principles everywhere, we really want to be mindful of both cultural differences, government differences. All those things play a role in how we

sort of manage from place to place and even though we're one united firm.

JAKE SIEWERT

So, you mentioned a couple times the challenges of working from home and I, myself, being brand new to it, have plenty of challenges. I think I need to teach my children to meditate. But working from home is isolating, it's not something people are generally familiar with. Some advice for those on how to remain calm and productive when they're working from home?

DR. MICHAEL RENDEL

Yeah, I would say a couple things; one, set up your workstation. This will be your workstation for the next six weeks or so, or maybe longer or maybe less, it's hard to say. Make sure you have a comfortable workstation. , you won't have an ergonomist, and a special chair, and a special monitor and all the things that luckily, we're able to support you and bring to you at Goldman

Sachs, but you have to do the best you can with your laptop instead of a desktop. Find the right chair for you, make sure you have a comfortable environment, that the lighting is right, because that makes a huge difference, we all know that. That makes a huge difference in how productive we are.

Two, think about what you're going to do for taking breaks, making sure you have time that's quiet for you, time that you can spend with your kids so that you don't get anxious you're not spending enough time with them or paying enough attention to their needs. Figure out a way to get some exercise. I think that's really, really important. , where I live now, we have some trails near my house. I can't go to the gym anymore, I can't ride my bike because it's winter, but I'm going to start doing a lot of walking. I think that's a really important thing for us to do.

And then, again, I think make sure you're communicating with others. We're social animals by nature, as I've said before, and make sure you're keeping in touch with your friends, with your colleagues and making sure that it's built into your day that you're having enough social interaction.

JAKE SIEWERT

There's obviously a lot of information out there today, and a lot of misinformation and faux experts on this topic. How do you yourself make sure that you're getting the best information that's available and stay up to date on the relevant developments?

DR. MICHAEL RENDEL

So, first of all, I think our national websites like the CDC, the NHS and then globally, the WHO websites provide really good information that they're constantly updating. And I'm trying to look at those three sites, for instance, almost every day. And then sometimes our regional office is

looking at the local websites for each country.

They're really going to be providing really valuable information.

Secondly, we have consultants that we use that are infectious disease experts, that are our global travel experts and they have information available to us and so I'm trying to look at those websites every day and we get updates from them via email every day. And then finally, it's important that when there's opportunities to listen to the CDC or our local departments of health or other webcasts that are being held now on a regular basis, because this pandemic is so fast moving and so quickly evolving, it's really, it is a real challenge to keep up and that's why every part of my day every day is really looking through all these sources of information and making sure I'm keeping up as best I can.

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JAKE SIEWERT

Well, Dr. Rendel, thanks for joining us today and sharing your wisdom with us.

DR. MICHAEL RENDEL

Happy to be here. Thanks for inviting me.

JAKE SIEWERT

That concludes this episode of Exchanges at Goldman Sachs. We'll be back later this week with the markets update from Tony Pasquariello from our Global Markets Division. If you enjoyed the show, please subscribe in Apple Podcasts and leave a rating or comment. Thanks for listening and be safe out there.