All the Best Podcast

Episode 51: "Looking Ahead (Cont'd): Avoiding a Vaccine Cold War"

Featuring CEO of The Coalition for Epidemic Preparedness Innovations, Dr. Richard Hatchett

April 8th, 1987. Went out to the National Institute of Health for a very impressive AIDS briefing. Dr. Samuel Broder, Dr. Tony Fauci, the head of the hospital, Dr. James Wyngaarden and others. Blood supply is being screened and is safe. They are encouraged by some of the vaccines. They can keep people alive quite a bit longer. About a year later, I would be asked in one of the presidential debates to name some of my personal heroes and named Dr. Fauci, because I was so impressed by his unselfish dedication to AIDS research. George H.W. Bush.

George: In the first place, I believe that character is a part of being President.

Barbara: And life really must have joy.

Sam: This is "All the Best." The official podcast of the George and Barbara Bush Foundation. I'm your host, Sam LeBlond, one of their many grandchildren. Here, we celebrate the legacy of these two incredible Americans through friends, family, and the foundation. This is "All the Best."

George: I remember something my dad taught me. He said, write your mother, serve your country, and he said, tell the truth. And I've tried to do that in public life. All through it.

Barbara: You are a human being first and those human connections with children, with friends are the most important investments you will ever make.

George: We stand tonight before a new world of hope and possibilities for our children. A world we could not have contemplated a few years ago.

Sam: On behalf of our family and the George and Barbara Bush Foundation. This is "All the Best."

Dr. Richard Hatchett is the Chief Executive Officer of the Coalition for Epidemic Preparedness Innovations, or CEPI, a partnership of public, private, philanthropic, and civil organizations that finance and coordinate the development of vaccines. Prior to joining CEPI, Dr. Hatchett most recently served as acting director of the U.S. Biomedical Advanced Research and Development Authority after serving for five years as the organization's Chief Medical Officer and Deputy Director. There, Dr. Hatchett oversaw programs to develop medical countermeasures against chemical, biological, radiological, and nuclear threats, pandemic influenza, and emerging infectious diseases, including H3N2V, and H7N9 influenza viruses, MERS, Ebola, and Zika. Previously, Dr. Hatchett served on the White House Homeland Security Council under my uncle, George W. Bush, and was a member of the White House National Security Staff under President Barack Obama. Doctor, welcome to "All the Best."

Richard: Thanks, Sam. It's wonderful to be here. Thanks a lot.

Sam: Doctor right out of the gate, I'd like to start by talking about the letter you just read. I know you have a history with Dr. Fauci. Can you tell us about it?

Richard: I know Dr. Fauci, I used to work for him actually and have known him for years and years and years. And of course have watched him, you know, in this role that he's played during the current pandemic. But this letter really reaches back to a period very early in Dr. Fauci's career. You know, he became the director of NIH in 1984 and was one of the first scientists really to realize the importance of HIV as a virus and AIDS as an illness. I understand why your grandfather admired him so.

He played a critical role at a time when there was really terrible stigma attached to a diagnosis of AIDS and the populations that had AIDS were stigmatized and they were angry. They felt like this terrible plague that was ravaging their populations was not being addressed because they were stigmatized populations. And Dr. Fauci reached out to some of the most vocal activists, to some of the angriest people and at the time there were protests outside the gates of the National Institutes of Health. And Dr. Fauci went outside the gates and invited the activists up to the boardroom to talk with them about what their concerns were and became, on their behalf, and activist for changing the way clinical trials are done and changing the way access to experimental medicines are provided to affected populations. And it's really one of the most inspiring

stories from a very inspiring career that Dr. Fauci has had. And I would agree with your grandfather about him being a personal hero.

Richard: Doctor, thanks for sharing that perspective. You're one of the world's foremost experts on pandemics and vaccines so I'd like to bring us up to today. We're speaking in October of 2020, where are we currently in the fight against the COVID-19 pandemic and the development of a vaccine?

Richard: We're making progress. It is possible, you know, that even by the end of this month, the companies may have the first glimmer of data from some of the clinical trials that are underway. Now that won't instantly mean that a vaccine becomes available in the United States. The companies probably apply for emergency use authorization first that might make vaccine available to some high-risk populations. But I think what we're going to see beginning, possibly before the end of the year, but certainly accelerating early next year is vaccines beginning to become available and beginning to become broadly available, which is, you know, what we've all been working for. If I could say just a minute about my own organization, CEPI, the Coalition for Epidemic Preparedness Innovations, we've invested heavily and invested early in developing vaccines. We made our first investments to support vaccine development in January, just 12 days after the viral sequences were released.

And I think as a result of that early investment, we've invested in nine vaccines to date and eight of those vaccines are now in clinical trials with three of them being in phase three. And there are only 10 vaccines in phase three clinical trials worldwide. What we are demonstrating is that in fact, it is possible to compress vaccine development in a way that it has never been compressed before. And I do think we will be delivering, we CEPI, but also we, the scientific community at large will be delivering vaccines to the public, you know, within 12 to 18 months of this virus emerging, which is amazing. That letter from your grandfather mentioned Dr. Fauci's optimism about AIDS vaccines in the 1980s and here we are in 2020, and we still don't have an AIDS vaccine, unfortunately.

Sam: Doctor, just recently you were our foundation's guest on a very distinguished panel, including Sir Jeremy Farrar of the Welcome Trust and Dr. Swaminathan on a program looking at what it would take to avoid a vaccine cold war. And for those listening at home, you can find this information on our foundation website and YouTube channel. Could it actually happen that nations would use a pandemic and the vaccine to engage in some kind of geopolitical struggle?

Richard: I don't think they would use a vaccine offensively put it that way. I mean, I think vaccines offer a very attractive kind of soft power. This is sort of the geopolitics, you know, with a carrot rather than geopolitics with a stick. The ability to provide vaccines to countries where you have other geopolitical interests, I think that is a possibility. I think we're seeing some evidence of that taking place right now, and it's a way of winning influence and demonstrating, I would say, global leadership in a sense. And if it also serves the interest of your country, then you can understand why some countries that have access to vaccines might look at the vaccines as potential tools. CEPI has argued that we shouldn't either reserve vaccines for specific countries. I mean, we've said as long as the pandemic is anywhere everybody's at risk, but we are trying to do through our partnership with Gavi and with the World Health Organization in setting up Covax is to create a mechanism that would allow for the management of what is going to be still a scarce resource. Even as these vaccines become available, they're not going to be able to meet global demand next year.

So it's going to be a scarce resource. And our argument is if you have a scarce resource that can really take the impact of the pandemic down several notches by protecting those who are at greatest risk for bad outcomes, that that scarce for source needs to be shared globally and it needs to be shared equitably. Not in the service of geopolitical aims, and it shouldn't be hoarded for use in just one or a few countries. And I think without having a global mechanism to provide for that equitable distribution, unfortunately we know that things left to their own devices, wealthy countries are likely going to purchase whatever vaccine supply is available for their own populations, which is completely understandable, but that means that that same supply can't be distributed globally to those who need it most. And that means in this context of a pandemic, it means that in fact, the pandemic will go on longer than it needs to go on, and more people will die than necessarily need to.

Sam: Doctor what are Covax and the ACT Accelerator and why are they important to our listeners?

Richard: Thank you for asking and sorry for all the acronyms. I'm ex-U.S. government. So ACT is actually an acronym for Access to COVID-19 Tools. And then the Accelerator is to accelerate access to COVID-19 tools. So that's the ACT Accelerator, and that's a really interesting coalition, I'll call it. And it involves traditional multilateral institutions like the World Health Organization and the World Bank, as well as non-governmental organizations like CEPI, like Gavi, like the Global Fund, as well as countries and private sector partners, all coming together, bringing the strengths that they have individually, none of which are positioned to help solve the problem of the pandemic by themselves, but bringing them together to gain the power of the private sector for innovation

and for developing these tools to gain the strength of these non-governmental organizations and thinking about how to procure and deliver and to work with countries and the legitimacy of the multilateral institutions and countries working together collectively to solve what is fundamentally a collective transnational problem.

Now, Covax is part of the ACT Accelerator, and it is the vaccine part of the ACT Accelerator. There's also a part that focuses on diagnostics, focuses on therapeutics, but the Covax is specifically focused around vaccine. And what Covax is doing is it's building on the investment that CEPI has made in a portfolio of vaccines. It's trying to develop a broad portfolio of vaccines, so to hedge risk, because we don't know which vaccines are going to be successful, which ones are going to be first by making a broad set of investments in a diverse portfolio and then coupling that risk management with the portfolio with advantages through Gavi, of countries, coming together, putting their resources together and procuring together. And by doing that, one, that's very attractive to the private sector partners, because it means larger orders of vaccine. It means a demand guarantee that enables the companies to make investments in, you know, scaling up manufacturing and beginning to produce a vaccine at large scale, because they know that there's this gigantic market waiting for them.

And then it's also coupled with, as I said, the legitimacy of a fair allocation process that ensures that everybody will receive the vaccine as it becomes available, and that you won't have privileged countries at the front of the queue and many other countries just waiting for leftovers. Covax brings those three elements together into a system for speeding the development and delivery of vaccines globally in the interest of ending the pandemic. Sometimes I'd say it's important to remind people why we're developing a vaccine. We're developing the vaccine to end this pandemic so that we can get back to normal. And so we got to use the vaccine to do that.

Sam: Doctor, what's it been like to facilitate cooperation between all these large entities and have they been able to unify around the common goal of ending the pandemic?

Richard: All things considered, I mean, this has been the biggest challenge that I've ever been involved in. I'm not going to deny that, but remember, six months ago, Covax wasn't even a figment of anybody's imagination to go from nothing to in six months having, as of today, we have 184 countries participating, representing over 90% of the world's population. That's extraordinary and I think the only thing that has enabled that is, one, division of the world coming together to respond to this external threat and to do that in a way that is fair to

everybody and that saves the maximum amount of lives and ends the pandemic, as soon as it is possible to end the pandemic, that's pretty compelling. One thing that I have observed over the course of my career, and this goes back to serving at ground zero after September, the 11th is when communities, however that community is defined and in this case, it's the entire world, face an external threat. They will leave their egos and baggage at the door and come together and entering into the response to the pandemic. I had that prior experience on a number of occasions where people in groups are willing to come together and just get really pragmatic and solve problems, you know, in a way that they don't normally do in the context of a crisis.

Sam: Doctor, I'd like to talk a little bit more about the logistics of a vaccine. You've made the point that it would be better to vaccinate some people in every country, as opposed to everyone in one country. Why is that and how do you distribute vaccines globally in a timely manner?

Richard: Let me answer your second question first. It is absolutely a huge undertaking, and this will be the biggest mobilization of a vaccine or any new medical technology in the history of the world. The enormity of that, you know, kind of needs to sink in. I mean, we're talking about vaccinating, ideally, billions of people next year against a disease that didn't exist, you know, until late in 2019. Just the pure logistics of moving that much vaccine would be enormous. Then if you overlay the problem of having to develop vaccines in a whole different array of vaccines and the complexities of the regulatory requirements globally, and even the labeling requirements and finding the places to manufacture and the facilities to fill the vials that go out to the healthcare workers that will be distributing it is unbelievable complexity.

Now, why it's important to do that globally rather than just starting where it's easy is that with COVID what we have seen is that the disease has a markedly differential impact on different parts of the population and there are parts of the population, fortunately young people, you know, who had very minimal impact of the disease. I mean, hard to convince them that it's anything worth worrying about. It's such a mild disease for kids and for teenagers. Other parts of the population, people that are over the age of 65, particularly those over the age of 70, 75, even 80, maybe as many as 10 to 15% of the people who actually get sick die. There is also heightened mortality for people that have high risk medical conditions, that have diabetes or hypertension or other medical conditions that predispose to bad outcomes. And so what you've got is in a population, you've got a very large number of people who can probably manage this disease just fine with their own immune systems, without a great deal of help, but you've got a significant fraction of the population, 15%, 20%, maybe in some countries, even as much as 30% who are at risk for pretty severe

outcomes. What will be important to change the nature of this disease and change the nature of its impact on society is to protect those who are at risk of severe outcomes with the first doses of vaccine.

But those people are everywhere. They're in poor countries, they're in rich countries and as long as the countries at risk of these severe outcomes, it means it's at risk of its healthcare system becoming overwhelmed. Once a healthcare system begins to break down, you know, everything gets really complicated and the impact becomes really expensive and societies are forced into a position of having to undertake these terrible lockdowns and shutdowns to regain control. So if we want to get rid of the lockdowns and we want to get rid of the dreadful social impact and we want to get economies started again and things getting back to normal and life getting back to normal, we got to protect the people that are at greatest risk, and we've got to protect them everywhere.

Sam: Dr. Hatchett, prior to leading CEPI and its vital role, you served on the White House Homeland Security Council staff of both my uncle George W. and President Obama before moving over to run the U.S. Biomedical Advanced Research and Development Authority or BARDA. This was in the aftermath of 9/11, which you already mentioned your experiences there. What did you do in these unique positions? And I understand there's a connection to our friends and partners at Texas A&M University.

Richard: When I first went to Washington, it was after serving at ground zero for the first several days after the attacks, I kind of got in on the ground floor of the Civilian Biodefense programs. And this will ultimately relate to the Texas A&M piece of the story. You know, there had been certainly an interest in our concerns about bio-terrorism even before 9/11, but after the 9/11, and especially after the anthrax attacks, those really were heightened. And because I was kind of getting in at the very beginning, I had these wonderful opportunities to progress quickly in my career in government. And ultimately, as you said to serve in George W. Bush's Homeland Security Council, and then later with President Obama. One of the things that I did for your uncle was work on the pandemic, influenza planning. I think many people now regard some of your uncle's greatest legacy being his contributions to global health. PEPFAR, for example.

I think until this pandemic that we are currently experiencing, I don't think people appreciated how far-sighted he was about pandemics. I'm very pleased to see the recognition now to his personal leadership in pushing the U.S. to invest significantly in pandemic preparedness. And you may know better than I do, you have to tell me if it's true, but the story is that there had been some events that kind of pointed to some weaknesses in our normal flu vaccine

delivery system, but then your uncle read John Barry's book about the 1918 pandemic and it scared him. And that coupled with the weaknesses in the influenza vaccine system led him to push for a major investment on pandemic flu. Now, is that a true story?

Sam: You got it right.

Richard: Okay. I've been telling that for 15 years.

Sam: Continue telling it you're right on.

Richard: I feel like you're a reliable source so I would think that it's validated. I've worked in the Homeland Security Council with a small group that developed the national plan basically for pandemic influenza. And we also worked... a subset of us, worked on developing social distancing interventions and figuring out how to use things like school closure and social distancing in the community in conjunction with treatment and isolation and quarantine to respond in an event where we didn't have vaccines. And of course, we're now living that out in a way that we haven't since 1918 in fact. With President Obama, I worked for the Homeland Security Council under your uncle for about six months and then I went back to my day job. I was actually working for Dr. Fauci at the time, went back to working for Dr. Fauci. Three years later, after the transition in the administrations, the Obama administration coming in, they were brand new, only been on the job two, three months when they've got a problem, they certainly did not expect.

I mean, they were dealing with an economic crisis and all of a sudden there was a pandemic. The Obama administration had the good sense to recognize all the work that had been done by the prior administration and to invite many of the people that had led the efforts in the prior administration back in to help them manage the pandemic. And so I was asked to come back down to the White House and I stayed 18 months that time working on the pandemic and then coming out of the pandemic, working on what did we learn from this and what do we need to do? And it was as a result of figuring out what we needed to do that I ended up at BARDA. It was actually, this is where I was at Texas A&M and this is long answer to your question, this is where Texas A&M comes in.

One of the things that we realized there was a significant weakness in terms of the pandemic that we still needed domestic vaccine manufacturing capability. And so we recommended as part of this lessons learned process that the U.S. set up a number of manufacturing sites that would be funded by the government and available to the government in the event of future epidemic or pandemic emergency. There were four of these that were set up and of course, one of

them is, you know, at Texas A&M. Of course, all four of those units, they were expensive to stand up and people probably thought, oh, these are being underutilized, and oh, this is a boondoggle and why did we invest in all of this? And then boom, the pandemic comes and now they've been drawn in. We always represented them as an insurance policy. And somebody pointed out that having an insurance policy pay off within seven years is not too bad.

Sam: Not too bad at all. Well, doctor, people out there are wondering when life will ever regain some semblance of normalcy. In your view, will life ever return fully to normal, or has the pandemic permanently altered life as we know it in some lasting way?

Richard: I think it will return to something that is much more like normal but I think the pandemic has been such a big event that it's going to produce changes. Anyway, I mean, just look at people who are able to work from home, have now become quite comfortable doing that. Managers become quite comfortable managing people at home. Even if everybody's vaccinated and COVID-19 as a threat is completely under control, I don't know that we're going to go back to living the way we lived before. And changes in travel patterns. People may not resume traveling quite as much as they did before. I mean, there'll probably be a big spike obviously, everybody's a lot of pent up demand. I think the pandemic has changed the world in ways that we can't completely predict. I think COVID as a disease is not going away. I think it's going to be around for the indefinite future.

And I think what we don't know right now is how well these vaccines are going to work and how long the immunity that they produce is going to last. So could we live in a world where we need, like with flu to go out and get a COVID vaccine every year? That's possible, I don't know. I hope it's not the case, but that may be possible, but I think we're going to have to adjust to living with COVID as a threat, just like we've adjusted to many threats. And I mean, every time you get in a car, there's some risk of an accident. And so you put on a seatbelt, you know, every time you turn on your computer, if you're connected to the internet, there's some risks that you might have a computer virus or a phishing attempt might show up in your inbox. And humans are really resilient, really adaptable. And once they understand the risk and understand how to manage that risk, they are able to accommodate living a normal life with that risk. And I hope we get there soon with COVID.

Sam: Doctor, thank you so much for joining us. I'd like to end on a positive note. What good things are coming out of this pandemic?

Richard: One good thing that is coming out of this pandemic, we have a whole set of vaccine development technologies that have been under development, some cases 10, maybe even 20 years. Many of those are going to be validated by developing COVID-19 vaccines and thus they're going to become available to make other vaccines and I think it's going to transform the whole landscape of vaccine development. It could even transform the economics. I'm really encouraged by that. I think we're going to see very significant investments in vaccine manufacturing, you know, in many countries and that's going to increase global capability.

And the last thing is you know, I think we have seen the world come together in a very important way. Hopefully the memory of the world coming together through Covax will linger, and I think going back to your grandfather's legacy, your grandfather of course, was a big believer in multi-lateralism and I think Covax represents that scene, multi-lateralism in its best possible light. And I think if the world can see a shining example of how it can come together to solve one threat, there are many threats that are global threats, and I hope it will be an inspiration the world can come together to solve other threats.

Sam: Well, doctor, thank you so much for all you're doing to fight this horrible pandemic and we hope that you're doing well. And thank you for joining us on "All the Best."

Richard: Great Sam, thanks so much for having me.

Sam: I'm Sam LeBlond reminding you to listen, share, and subscribe to "All the Best" on Apple podcasts, Spotify and everywhere great podcasts are found. Thank you for joining me as we celebrate All the Best.

Barbara: Both George and I believe that while the White House is important, the country's future is in your house. Every house, all over America.

George: Preparedness, strength, decency, and honor. Courage, sacrifice, the willingness to fight, even die for one's country. America, the land of the free and the brave. And God bless the United States of America. The greatest country on the face of the Earth.