

Covid, The Vaccines, and Why We Can't Rely on Them to Save Us



Ep 6: Covid, The Vaccines, and Why
We Can't Rely on Them to Save Us
with Dr. Bob Bollinger

Gregory Anne

Welcome, everybody. My guest today is a very special guest and a very important guest for our times which is full of Covid, Dr. Bob Bollinger from Johns Hopkins University. Thank you so much, Doctor, for being with us today.

Dr. Bob Bollinger

Thanks, Gregory. Nice to be here.

Gregory Anne

Thanks. So your CV is very extensive. I asked you for a bio and I think the one you sent me runs five or so pages, everything from doctor of medicine, internal medicine, public health fellowship and infectious diseases and on and on.

Gregory Anne

And I know you've been involved in international public health, everything from malaria, tuberculosis, HIV AIDS, so many infectious diseases, even resistant antibiotics. And here we are, 2021. You're at Johns Hopkins. You're an educator. You're still practicing medicine with covid patients and other things. How did everything in your background to prepare you for this moment. And how did you get to this moment? Why India?

Dr. Bob Bollinger

Why India? Because that's where I started in infectious diseases in 1979, a long time ago, sort of my gap year between college and medical school I took time off and I traveled to India. An opportunity to work with a group doing leprosy work. And so I got hooked on tropical diseases, infectious diseases, public health during that experience. Came back, went to medical school up at Dartmouth. I grew up in Baltimore, moved back to Baltimore to do my residency in internal medicine at the University of Maryland, and then eventually made it over to Hopkins, did my master's in Public Health and Infectious Disease Fellowship there.

Dr. Bob Bollinger

And so I've been in Hopkins on the faculty as an infectious disease clinician and now a professor of medicine and public health and nursing. Well, since 1990, early 1990s. So when I had an opportunity back in 1991 to go back to India to start doing some HIV work, I jumped at the chance because I'd been there before and loved India and enjoyed the work. So I started working on HIV projects back in the early nineties in India and then sort of leverage that to expand our work.

Dr. Bob Bollinger

We've been working there ever since and working not just on HIV, but tuberculosis and maternal and child health and other infectious diseases. And of course, a year ago when we could see covid coming, we anticipated it was going to be an issue. And so we put into place some, some projects to begin to look at covid in India, but when it hit us as an infectious disease person, you know, I think all of us in this business have been talking about the risk of a global pandemic for a long time.

Dr. Bob Bollinger

This was not unexpected in that sense, we've been predicting it, we've had two other SARS type outbreaks even before this one. I think most of us thought it was going to be another influenza epidemic. And I think when this thing hit, it took us all a little bit by surprise. But it was spreading really fast in January. So I started working in late

January, early February at Hopkins, trying to help Hopkins prepare because we could tell it's coming.

Dr. Bob Bollinger

It was hitting Italy and moving its way into New York. And we knew it was just an inevitable. So I was working primarily on trying to get Hopkins prepared and to some extent in India, I was sharing our lessons learned as things came in and we started seeing patients, we started creating guidelines and education materials for ourselves. And so I started sharing a lot of that with my friends in India. I think that's where we started. We've come we've had quite a journey since then, I think both here and there and around the world.

Dr. Bob Bollinger

So. I guess, you know, as an infectious disease person, this is what this is what I what I do, I think the, there have been a lot of things that are surprising or challenging about this, I think. Even as an infectious disease person and somebody in public health for many decades, I'm I guess I was surprised, still surprised at how poorly in the United States we managed this. And I was also surprised by how devastating, from a clinician's point of view, having cared for Covid patients, how just unusual and devastating this is for families, for patients, for the community.

Dr. Bob Bollinger

As somebody who worked in HIV and AIDS for a long time, I'm we're all used to tragedy. We're used to, unfortunately, helping families deal with and patients deal with illness. You know, this has been a very unique challenge, I think, and something we haven't seen for over one hundred, for one hundred two years since the Spanish flu. And so there's a lot of new new learning that has to go along with that, even with a lot of experience in infectious diseases and public health.

Dr. Bob Bollinger

There's a lot of new things we've learned that some some hard lessons, I think, as well.

Gregory Anne

Yeah.

Gregory Anne

Do you think, according to the news, the media is all I have to go on, that the Obama administration left a playbook for a pandemic? Do you think that that playbook being used, would it have made a difference in the number of Covid cases we see?

Dr. Bob Bollinger

If we had done a lot of things differently, we could have seen a reduction in the number of cases. It's not just playbook. I mean, the playbook is really pretty straightforward public health measures. And one of the most important things is communication, and consistent communication, and fact based communication. And we didn't do that very well, certainly not on a federal level. That clearly, I think, had an impact going on what we're seeing now, people who are distrustful of what they hear from the government, distrustful of science, not believing in what they're hearing about people like Tony Fauci and others, just create a confusion and and I think contributed to what we're seeing now.

Dr. Bob Bollinger

There's certainly a lot of other countries that did a better job than we did.

Gregory Anne

And we're reading this morning, my husband and I, about the number, the percentage of people who have been vaccinated in the country like Israel, I think has done the best job, maybe twenty five percent or more of their people, actually much more than that. And then you get down to America and we're really just inching up in the percentage of people. So in one sense, I guess what I'm saying is we've had more infections because of the way things were handled and now trying to roll out these vaccinations seems like we have less people getting vaccinated also because of some either a lack of communication or because we're 50 states and every state has its own way.

Gregory Anne

I don't know. It seems it's confusing to me and the people that I speak to. So you hear this is the public just throwing up their hands going, why are we so poorly administering this?

Dr. Bob Bollinger

Well, I think both the epidemic challenges and the vaccine challenges are reflecting a number of challenges for us. I mean, one of them, as a country, as you said, we're diverse, we're big, but there's other big countries that have done a better job than we have of course. We have not invested in public health, basic public health for a long time, not sufficiently.

Dr. Bob Bollinger

So when we needed to do contact tracing, when we needed to roll out testing earlier on, we needed to roll out community health prevention strategies, we didn't have the people and the infrastructure and the resources in place to really address it like a lot of other countries have. And we're seeing the same thing with the vaccine rollout, right? I mean,

A, we don't have yet enough vaccines, but even the vaccines we're have, we're having trouble delivering them because we don't have a public health infrastructure relying on the the existing public private partnerships. Countries like Israel, for example, rolling out from a public health point of view, big programs really fast because they've invested in public health infrastructure and personnel in ways we haven't. Same with Taiwan. Same with Korea. You know, you've seen places that have had a better outcome than we have. And I think those are the same places that are going to be rolling out vaccination. Another example is India. I mean, of all places in the world, India is going to do a much better job vaccinating and have a much more robust vaccination program than we do.

Dr. Bob Bollinger

They get their kids vaccinated.

Gregory Anne

Their population is ginormous,

Dr. Bob Bollinger

Huge, which, yeah, the three or four times our size. But they have a huge public health infrastructure delivering vaccines.

Dr. Bob Bollinger

They know how to do this and they're going to show us how to do it.

Gregory Anne

Have we ever in this country had a better public health structure and it's fallen apart, or was it just nothing that was prioritized?

Dr. Bob Bollinger

Well, we've not prioritized it for sufficiently for the last few decades. I think early if you look back at, for example, during times when we were immunizing and pushing polio and measles vaccinations and and more community and public initiatives around things like childhood vaccinations, we did a much better job than I can certainly recall as a kid hearing about public health messages all the time and seeing vaccine programs coming into the schools.

Dr. Bob Bollinger

Make sure we all got our polio vaccine, for example. We haven't invested in that kind of thing for many decades and we've relied a lot on science. We've certainly made incredible investments that have paid off in the basic science. I mean, I think the development of vaccine is is a world record and that really reflects an investment in basic science that's now paid off. But the public health part of it, getting the vaccine into

arms, getting people to wear masks, getting people to understand and follow basic prevention messages, that's really been the problem.

Gregory Anne

And freedom of action and thinking and speech and all those things that our country is known for, it seems, also contributes to part of the problem. "I don't want to wear a mask. It's against my personal freedom." And then I remember somebody saying "if it wasn't for the mask, I wouldn't have gotten covid because it stayed behind it". You know, we've heard so many things along the way that I think now that it's vaccine time, some people are just as skeptical about the vaccine and what it could or couldn't do to us, never mind, prevent us from getting sick because of all of that.

Gregory Anne

I'm going to say skepticism early on, just about masks, no mask, shut the schools, don't shut the schools. All of these things swirling around, no one clear message. So now we are trying to get vaccines that we do have rolled out it into people's arms. And we've heard tons of stories, Mrna, a live vaccine and one shot and two shots and people get sick and they don't get sick. And let's just start with the simplest thing, which I still have one question about an Mrna and a messenger RNA vaccine and a lot of that.

Gregory Anne

Do we have any live vaccines out there right now or is there are a number of them.

Dr. Bob Bollinger

There are two that are in the pipeline, the Johnson and the AstraZeneca vaccines or are live vaccines, and they're being evaluated right now. We should know more about them in the next couple of weeks.

Gregory Anne

And are they in any way preferable? I mean, most of what we've had, chicken pox, measles, those were live vaccines. And we don't we haven't used an mRNA yet.

Dr. Bob Bollinger

We know this is the first time we've used it at this scale, but they're working great so far. The safety profile is really good compared to a lot of other vaccines. So I think it's been a real benefit to have this new technology. The advantages for the the live vaccines are there. We have, as you've already pointed out, we have a lot more experience kind of manufacturing those, that can be stored at lower temperature so they're easier to distribute. They're less expensive to make.

Dr. Bob Bollinger

What we don't know yet whether they're going to be as effective in protecting people from getting sick as as the mRNA vaccines, which are extraordinarily good at protecting people from getting sick, at least in the first large studies that we've seen. So, I mean, it's really been much better than I ever expected it to be. I mean, we were talking about approving a vaccine that had 50 percent protection. This is over ninety, ninety five percent protective from serious illness.

Dr. Bob Bollinger

So it's remarkably good, but they're expensive to manufacture. Difficult, require a lot of cold chain support. And we're going to figure that out. But in the meantime, if these live virus vectors work as well as the others, then we're really in much better shape. But we don't have those data yet. Theoretically, there are some challenges with some of the live viral vaccines because without getting too far into the weeds, the strategy they're using is something called adenovirus.

Dr. Bob Bollinger

And the virus is a common cold virus for not just humans, but lots of other animals. And the adenoviruses have been genetically altered over the years to make them basically inert, not cause illness. And so what's done is you insert the genetic material from another virus inside the adenovirus and you inject that and it tricks the body into thinking it's infected with whatever that genetic material represents, in this case, Covid. The challenges are that lots of us have had adenoviruses before in common cold, and so many of us already have immune responses to these adenoviruses.

Dr. Bob Bollinger

And so when you give a vaccine to somebody that already has an immune response against the vaccine itself, sometimes it doesn't induce enough new immunity to whatever you're trying to target like Covid. So we don't know whether that's going to be the case yet, but that's something that's got to figure it out. But there are definitely advantages to having them a cheaper and easier to administer vaccine with. These vaccines are still two shots as well, as I understand.

Gregory Anne

And is that aside from the two shots, would it adenovirus based injection be like what we get when we get a flu vaccine now?

Dr. Bob Bollinger

No, the flu vaccine is a different live viral strategy, but it's it's what's called the viral. Yeah, most of them. But one of those who swallow, one that you squirt up your nose is

live, to get the injection of different kinds. It's usually a non live, but measles is a live vaccine. The Shingrix is a live vaccine.

We have lots of live vaccines.

Gregory Anne

And so, I have confusion speaking of shingles, and it also is true for this. Some people get symptoms from the shot that they're getting, the virus that they're getting, and some people don't. I've heard that if you get, you went down a couple of days, you didn't feel well after your second shot for Covid. And I've heard that if you get sick, you get symptomatic. That's good because your immune system is working. And I'm confused about that.

I mean, you just got sick with the thing that you're trying not to get sick from.

Dr. Bob Bollinger

No, you're not going to get you're not going to get Covid from a Covid vaccine. You're not going to get shingles from a Shingrix vaccine. I can tell you that the symptoms I had for my covid shot were relatively mild, I took some Tylenol. They weren't actually as bad as the Shingrix. I remember getting the Shingrix vaccine that was actually made me feel worse for two or three days. So, it was better than that one for sure.

Gregory Anne

But it's not that we're getting. So why does, why do we get symptomatic if the body is trying to fight off something?

Dr. Bob Bollinger

Because we tricked our body into thinking that we've got infected with Covid and when we really haven't, so the body's saying, wait a minute, hey, we've got to do something about this. You know, when you look at what's happened with a lot of patients with covid have long symptoms or they might have symptoms, they get over the initial covid and then they get sick again, end up in the hospital. It's because the real covid virus, not the vaccine, but the real covid virus disrupts the immune system in such a way that it actually, in some cases can attack ourselves.

Dr. Bob Bollinger

Our immune system gets out of whack from the covid infection in some situations that it actually causes problems. **We haven't seen that with the vaccine.** I mean, everybody, we see issues with all kinds of vaccines, sore arms, headaches, myalgias, those are pretty common with lots of vaccines. But I was actually fine.

Listen, I'm happy that I had a reaction to the vaccine if that means that my immune system is a little more revved up to fight off the real covid.

I'd much rather have a sore arm than a tube in my throat. I'll tell you that much.

Dr. Bob Bollinger

Because there's no comparison between the side effects of that vaccine and what I've seen this virus do to families and to people. Yeah.

Gregory Anne

And that's something you said in another call about seeing people who are the, who are the virus victims, but not necessarily the vector. A young person goes out to a party, comes down with it, infects their grandmother, and then maybe grandma dies. And that was a hard thing to be with all the time.

It's one thing for the patients. They're sick. That must be awful. You're used to seeing patients and been a doctor for a long time, but this extensive reach into families and communities is different than things we've seen. And maybe HIV AIDS was similar.

Dr. Bob Bollinger

Well, it's not spread the same way. It's a spread from person to person through the air. And so, it's wiping out whole families and particularly in, you know, as you might expect it, in communities where people are forced to live in larger groups, they don't have enough room or there they're essential workers, they can't afford to Zoom for work. They've got to actually go to work and they're getting exposed to a higher rate. They don't have access to health care.

And we've seen entire families get admitted to the hospital and be right down the hall from each other on different ventilators, right out right next to each other. And this has happened all over the country, all over the world. So, this is unprecedented.

We've not seen anything like this, as I said, and since the Spanish flu,

Gregory Anne

That's a great segue, because the Spanish flu, and I'm going to use this word, "disappeared". It didn't before doing serious damage. And I saw pictures and they had masks. So similar things to what we know to do to protect ourselves and others. But how did the Spanish flu just not become an issue? Because of vaccinations or herd immunity or

Dr. Bob Bollinger

We didn't have vaccinations at that time, so it was herd immunity and masks.

Dr. Bob Bollinger

The places that wore masks shut it down, the places that didn't, didn't, The places that actually shut down schools, restaurants and churches sooner had much lower rates. And

those that didn't. I mean, it's not rocket science. This is the same thing we're dealing with now. But remember, don't forget, we had over six hundred fifty thousand Americans die of the Spanish flu at a time when we had a much smaller population. Where there were more than 50 million infections in the world.

Dr. Bob Bollinger

This was, some estimates are that around one to two percent of the entire population, the United States, died from Spanish flu.

Now we're at about one in five hundred right now from covid. We've had four hundred and twenty thousand deaths already, which is more than World War One, Korea and Vietnam together. Right. And **we're heading in the direction where we could easily see six hundred, six hundred fifty thousand Americans die from this, just like we do with Spanish flu.**

Dr. Bob Bollinger

And this is one hundred and two years ago. We have much better health care right now. We should be doing a better job. And we didn't learn the same lessons, we should have. Historically, this was predictable. And if you look at the different cities in the 1918, 1919, the cities that implemented lockdown's early and sustained them had much lower death rates at much lower rates than those that didn't.

Gregory Anne

Pretty simple.

Dr. Bob Bollinger

Pretty simple as a respiratory virus. It spreads through the air. And if you breathe somebody's air that has it, you're going to get it.

Gregory Anne

I'm thrilled that I haven't even had so much as a cold this winter because I haven't gone anywhere. When I go somewhere, I wear masks.

Dr. Bob Bollinger

Wow, that's great. I wish more people would do that. In fact, the other irony is that there's a lot less regular influenza this year for those that are wearing masks.

Gregory Anne

This idea of herd immunity, which Dr. Fauci talks freely about it now, maybe more freely than before, and how much you said we could easily get to six hundred thousand. And there are people that don't want to get the vaccination even in, you know, in medicine, people that work, frontline workers.

Some do, some don't.

I'm not asking for a percentage of how many people have to get vaccinated. I'm just wondering **what you see down the road 12 months from now if let's just say only half the population that can get vaccinated gets vaccinated?**

Dr. Bob Bollinger

Then we're not going to be able to open up and go back to normal.

Dr. Bob Bollinger

Certainly not in the United States, and we're going to see more mutation's. This whole issue of variants, that the reason we're seeing more variants is because we have more infections in the world. We've had about one hundred million infections with this virus in the world. Twenty-five million in the United States, twenty two to twenty-five million.

Dr. Bob Bollinger

Every time a new person gets infected, this virus can mutate. So, **if we if we don't stop this now, if we drag this out, that's more and more mutations, more and more variants that could be more easily transmitted. They could be more dangerous.** They could invade the immune system. *The more we let this go on, the harder it's going to be to rein it in.*

Gregory Anne

One last thing, the idea of "long covid" is the way The New York Times refers to it in an article that I read about a woman who is now coming out of a long covid year. I guess I'm going to ask this, even though you touched upon it before, for people that are hesitant or afraid of the vaccine, they don't know what it's going to do long term because we don't really have long term for this particular. The long covid symptoms could hit anybody.

Gregory Anne

I've heard of young people, football players, middle aged people holding. What can you say to people to help them get over the hump of the fear of the vaccine versus the possibility that they might end up? You don't know who is going to be this person or even just to get covid and not be the one that comes through in a week or 10 days?

Dr. Bob Bollinger

Yeah, I think, you know, we can certainly talk about the protection of people who might be concerned about the long hauler situation, but we don't know whether or not the

vaccine is going to do that, because, as you've said, we haven't followed people long for that.

Dr. Bob Bollinger

But one thing I might say is this, look, if you look at the two mRNA vaccines that have gone out so far in the United States, one of them looked at about forty thousand volunteers and another looked at a little over thirty thousand. So roughly seventy thousand people either got the vaccine or got a placebo and nobody knew which one that was. The people didn't know they got it. The doctors who took care of them didn't know. It was all basically blinded and randomized.

Dr. Bob Bollinger

And what they did is they followed those seventy thousand people for a couple of months and asked what was going to happen to them. And I would ask everybody who's concerned to ask themselves the following question,

Do you know anybody who ended up in the hospital or died with covid?
You know, any family members, neighbors, co-workers, other relatives that have gotten sick enough to be in the hospital or died from covid?
And I think the answer for most Americans is going to be, yes, right.

Dr. Bob Bollinger

Somebody, they know somebody. But if you look at those vaccine recipients. For the Moderna vaccine, there were about one hundred and fifty people that got covid in the placebo group and a much smaller group number in the vaccine group, the ones that got the vaccine.

But if you ask the question for the Moderna, vaccine, for example, *“how many people ended up in the hospital or died? And ask how many of the people that got the vaccine went up in the hospital?”*

The answer is zero.

How many died who got the placebo? Thirty. All of the people who died, all the people were in the hospital in the Moderna trial got the placebo. And none of those who got the vaccine ended up getting sick enough to go in the hospital.

Now, look. Does it mean it's going to be a hundred percent protective for serious illness when you start giving it to millions? Probably not, but that's remarkable. Well, ask yourself about everybody, you know, that end up in the hospital or died and what could have happened to them if they had gotten that vaccine three months earlier?

Dr. Bob Bollinger

If based on the data, virtually none of them would have ended up in the hospital or died from this infection. And so, I think, to me, that's the reason

to get the vaccine. And also, because there may be long term consequences, but the most immediate consequences if you're particularly if you're at high risk, over sixty five, have underlying health conditions, **your risk getting in the hospital and dying is real.**

Dr. Bob Bollinger

Both vaccines are highly effective at preventing that from happening. I want people to be able to survive long enough to worry about the long-term consequences.

Gregory Anne

That's compelling. That's great data to have. Thank you for sharing that. If you have anything that you want to add to this conversation, again, we've talked about, you know, there's so many news stories and articles and all this, but I wanted to hear from somebody that I know is really deep in the trenches with a wealth of experience in years and years and years of doing this. To give us your opinion, is there anything else that you want our listeners to know?

Dr. Bob Bollinger

Well, I just I suppose it's not going to be a surprise. What I perhaps like to emphasize, and that is that **we already know how to stop this epidemic.** We have examples from around the world how to do it. **We cannot and should not wait for the vaccine to save us** for lots of reasons because we have now close to three thousand Americans dying every day. And that's going to continue. So we can't wait for that. And there are things we can do right now.

Dr. Bob Bollinger

So, for those of you that are reluctant to wear a mask because you don't think they work, I can tell you they work. They not only protect you, but they protect others. So if you don't want to wear it for yourself, wear it to protect other people because you can transmit this virus very easily if you're not symptomatic. We've known that for a long time.

So please don't wait for the vaccine, wear a mask, protect yourself, protect others, because you care about not just yourself, but your neighbors and your co-workers and your family members.

Dr. Bob Bollinger

And by the time we need to get the vaccine out there to really slow this down, prevent other family members, neighbors, co-workers from getting sick and end up in the hospital or dying from this. And don't wait for the vaccine to do that.

Gregory Anne

I think that's a great point and one that I think a lot of people, myself included, you know, I felt like, oh, there's hope for twenty twenty-one, we have the vaccine. But in the meantime, like you said, there are things we can be doing and it (the vaccine) is not *the* thing, it's one of the things that will get us to a place where life can be whatever normal is going to look like.

Gregory Anne

Thank you very much for your time, I really appreciate it.

Dr. Bob Bollinger

Oh, you're welcome. Thank you, Gregory. You take care.

Gregory Anne

That's the end of another episode of the Rebellious Wellness Over 50 podcast. I hope you've enjoyed it. If there's anything that you heard or hear when you tune in that you think would benefit a friend, a sister, a mother, a even some guys send to my way, would you? And if you've not ever been to the website, Rebellious Wellness over 50 dotcom head on over there, there are resources, things that I don't always get to on the podcast that might help you age better be well till next time and stay that way.