

Episode 49: You Can't Dismiss Gravity

Chris Dall: [00:00:00] Support for this podcast comes from the Longer Life Foundation, a collaboration between Reinsurance Group of America and Washington University in St. Louis School of Medicine, conducting scientific research to discover groundbreaking insights for longer, healthier lives. Visit LongerLife.org, on Twitter at [@LongerLifeOrg](https://twitter.com/LongerLifeOrg) and on LinkedIn at Longer Life Foundation. Hello and welcome to the Osterholm Update: covid-19, a weekly podcast on the covid-19 pandemic with Dr. Michael Osterholm. Dr. Osterholm is an internationally recognized medical detective and director of the Center for Infectious Disease Research and Policy, or CIDRAP, at the University of Minnesota. In this podcast, Dr. Osterholm will draw on more than 45 years of experience investigating infectious disease outbreaks to provide straight talk on the covid-19 pandemic. I'm Chris Dall, reporter for CIDRAP News, and I'm your host for these conversations. Over the past few weeks on the Osterholm Update, we've been talking about an oncoming hurricane of covid-19 cases fueled by coronavirus variants and the loosening of pandemic restrictions around the country. To some, this prediction seemed off the mark because cases, hospitalizations and deaths were declining and the vaccine rollout was going much better than many predicted. The storm seemed like it was far off in the distance. Now it appears to be making landfall and alarms are starting to go off. "I'm going to lose a script and I'm going to reflect on the recurring feeling I have of impending doom," CDC director Rochelle Walensky said in the press briefing earlier this week. "We have so much to look forward to. So much promise and potential of where we are and so much reason for hope. But right now, I'm scared." The question right now is how bad will this storm be? That's what we'll be discussing on this April 1st episode of the Osterholm Update. We'll also talk about the expanding vaccination campaign in the US, the global situation, and answer our listener question about the World Health Organization's investigation into the origins of sars-cov-2. And we'll highlight the latest listener act of kindness. But first, as always, we'll begin with Dr. Osterholm's opening comments and dedication.

Michael Osterholm: [00:02:13] Thanks, Chris, and welcome to all of you. Great to be back with you again this week. It was a memorable week last week having done the podcast live. And as the CIDRAP staff can tell you that is always a bit of a nerve wracking issue to make sure that I don't mix my words or stick my foot in my mouth or something like that. So we survived. And I hope that you found it useful and helpful.

Today's podcast is going to be a bit of a complicated one, not in the sense that it's going to be lots and lots of numbers or anything like that, but I feel like I'm trying to thread the semi through the eye of the needle today. And that we're going to try to discuss what's happening globally, nationally and what the implications are going forward. And as Chris very nicely illustrated in his opening comments, it seems to be conflicting. The other thing we're going to talk about is this hurricane issue. You know that I've been commenting on this impending hurricane for weeks now, concerned that one day we would wake up and it would actually be a Category five hurricane. Well, it is. It is a Category five, make no mistake about it. On a global basis, as we will discuss, this pandemic is hitting all cylinders, unfortunately. And the darkest days of the pandemic are just upon us on a global basis. What will it do here? It is going to be a challenge. Make no mistake about it, we are not out of the woods yet. But what we'll do is try to review that information with you and what you can do. And I'm going to start by making one very important point. For everyone on this podcast who has not been infected with this virus, you can stay uninfected till the time you get your vaccine. That is the good news promise. And so one of things we'll talk about tonight is what is that going to look like? How are you going to do that? What's it going to mean? And that is probably the most important discussion I will have with you ever is how are we going to make certain that we get ourselves to the end? And part of that is knowing what that end is about. I also want to make one comment about tonight's dedication in the sense that it, too, is the most important dedication I can make ever on this podcast or any other future podcast. I'm dedicating this podcast to our kids. To our school children who are going to be confronted with B117, that new variant, in the school setting. And I think most all of you would agree on here, there is nothing more important in our lives. There's nothing more important in what we do or how we do than the safety and the security of our children. The love, the support. How do we help them? For some of us on this podcast, it's about our grandchildren. And this particular podcast is all about the kids in the sense of what's coming down and what we have to deal with. So I do dedicate this to our children or our grandchildren and hope that as we go through this discussion tonight, it becomes clear to you why we're going to have challenges in our schools and what we can do about them or must do about them in the days ahead. Before I move on, though, there's always one moment that we have to share here. It has become one that I hear often from listeners who send in emails about this and you're right with me now, right down to the second. Today here on April 1st, April Fool's Day, this is not April Fool's, we will have 12 hours and 48 minutes of sunlight in Minneapolis/St. Paul. That's a twenty

two minute increase since March 25th. And it's a three hour and forty three minute increase since December twenty first. Now, I have to say that the days are starting to slow down in terms of number of new minutes. We hit that when we hit March twenty first roughly, but it'll still get lighter and lighter and lighter till June. And there is nothing better than an enlightened life with lots of light. And I just again, remind everyone in the southern hemisphere we're thinking of you, we're shipping as much light as we can to you with the understanding there'll be reciprocity here in Minnesota next dark December and you'll help us out with that. So thank you again for being with us. We know you have many opportunities to get your information on covid-19. I do feel the very special bond with so many of you as part of the podcast family. Welcome back. You know, you're always welcomed here and thank you for being with us.

Chris Dall: [00:07:04] So let's start with the international situation, because while the storm may just be making landfall here, as you noted, it's been a hurricane in many parts of the world for weeks now. Can you give our listeners a sense of what's going on globally?

Michael Osterholm: [00:07:19] When I talk about the darkest days of the pandemic, by the very definition I'm talking about what's happening worldwide and have been. That's the very definition of a pandemic, a worldwide outbreak. When we were faced with the increasing number of cases in December and January in the United States, other parts of the world were also facing those very same challenges. Europe was one. We already saw it start to happen in South America. And the week of January 4th, the total number of cases reported for the week to the World Health Organization globally was five million forty eight thousand cases that week. And then just as we saw in the United States, the case numbers dropped precipitously after that, such that by February 15th, we were actually down to two million four hundred ninety one thousand cases, almost half of what it was on January fourth. What a major drop in a short time. And that's when the euphoria was kicking in in many locations. You know, we've kind of whipped this. We got the vaccine. We're down with our last surge. Well, unfortunately, this past week of March 22nd, which is the most current week data we have so far, we now have more than 3.8 million new cases reported this week, of which five hundred thousand additional cases this week over last week. We are on target to pass that highest peak we had on January fourth and within the next two to three weeks. And part of that is because the world is literally on fire. And that's what I don't think people understand

about when we sit here in the United States and we feel like we're isolated, we don't have to worry about what's happening in the world, some of that is true as it relates to the vaccines, and we'll come back to that, but some of that also is a situation where we should be taking very, very careful notes what's happening around the world, because oftentimes what does happen is what's about to happen here. And we can learn a lot from that. Let's just quickly go through the situation right now. One looks at Latin America and the Caribbean region as a whole, they are now reporting their highest number of daily cases ever. That includes deaths. The seven day average number of cases is now over one hundred and twenty five thousand cases a day, and it's rapidly growing. The seven day average deaths is now over 4000 deaths a day, and that, too, is growing. Brazil leads the world in the number of total cases reported over the past seven days. Over five hundred and thirty six thousand cases just in the past seven days. They're seven day average for daily deaths is now at about two thousand seven hundred, which if that were to happen here in the United States, equivalent population wise, it'd be over forty two hundred cases a day. If you look at what else is happening in Latin America, you'll see Argentina, Chile, Paraguay, Peru, Uruguay, are all seeing major substantial activity and it's all increasing. It's not going down. If you look at Europe, we've been covering that substantially from the point of cases increasing way back in last November/December before the B117 variant showed up. And I'll talk more about that in a moment. But right now, many countries in Europe are continuing to see major increases in covid cases and deaths. There have now been eight countries that are still at their peak of the infection curve Finland, Poland, Ukraine, Hungary, Moldova, Bosnia Herzegovina, Bulgaria and North Macedonia. If you look at what's happening there, they have right now four of the top five countries in the world with the highest seven day average of daily new cases. That's Hungary, Estonia, Poland and the Czech Republic. That's remarkable. In Africa, we're now seeing major activity in Ethiopia and Kenya with lots of questions about what else is happening there due to the lack of testing. As you can see, we are surely seeing the increase globally, which is why I talk about it being the darkest days of the pandemic. Now, if one looks even closer to home, look no further than our neighbor to the north, Canada. In a quote from the premier of Ontario on Monday, he said he is extremely concerned about the new coronavirus surge in the province and is fully prepared to take whatever measures he needs to to reduce the transmission. Recent reports show that more than 50 percent of the cases in Ontario are the B117. And health officials are noting a heightened risk of hospitalization and deaths constantly increasing. If one looks at the source of many of these cases,

education, child care is playing a very, very notable role. Where outbreaks there are then spinning cases off into the community, where now we're seeing 20 to 49 year olds becoming a much more common and frequent patient in the ICU. Something that happened with previous surges, but not like to the degree we're seeing now. So when one looks at on the international level and you look at vaccine, one has to also say, "So what's happening there?" And it is really a challenge for us. I've already covered this in previous podcasts, but let me just remind you right now, the high and upper middle income countries, which represent just one fifth of the world's population, just one fifth, have bought about six billion doses of vaccine, six billion doses. But the low and lower middle income countries, which make up four fifths of the world's population, four fifths, have bought only 2.6 billion doses. That's all they've been able to get. Six billion for those of us in high income countries, 2.6 billion for four fifths of the people in low income countries. Make no mistake about it, we will pay a price for this. And I can't emphasize that more strongly in the fact that as long as transmission continues unfettered in many of these low income countries, we will continue to spin out these variants. They will just keep spinning out and they will threaten the vaccine security of every high income country in the world. The variants have the ability potentially to get around protection afforded by vaccines or even natural infection. So one of the areas we're working on and I continue to put high, high, high priority to this is we've got to change the mindset that so much of what we're doing is about humanitarian aid. It's right to do that. We should never minimize that. But we have got to vaccinate the world as quickly as possible because of national security for every country. If we can't keep the integrity of these current vaccines, we are in big trouble. So I find the media hardly covers this issue and I'm surprised. Because to me it seems like just the one story that we would all want to know. Let me make one last comment on the international piece. And this is where the kids come back in. Just to remind everybody as a primer on the variants of concern. And I'll keep coming back to those mutated viruses that really fit in that three bucket array of more transmission, more severe illness, or the ability to evade immune protection or natural infection protection. And this particular virus is critical in the sense that its transmission is greatly enhanced over previous strains of the virus. Recent estimates from several good studies, one in particular from the Imperial College in London, shows that it has anywhere from 70 to 100 percent more transmissibility than the previous strains of covid-19 virus. If you look at severity of illness among those who then get infected, we're seeing 50 to 60 percent increase in severe illness. So even if in previous days I did get infected, I might not be as likely because of my age or my good

health, whatever, not to become seriously ill. That changes with this virus. The final piece that is so critical on an international level and will surely be important domestically, kids. It's all about our kids. If you've been listening to this podcast, you know that I have been a very strong supporter of getting kids back in school safely. And the data we had said from K through eighth grade, you could do that. For reasons we couldn't completely understand and we didn't know why these kids were not getting infected with increased rates, why they were not transmitting the virus with increased rates. If this were influenza, we'd expect the kids to light up like Christmas trees and spread it throughout the community. That's how we see influenza seasons get started in our communities. Didn't happen here. And then B117 came along, changed everything. Just as we've seen in the earliest days in England, we're seeing now wherever this virus is, it will infect kids with the very same rate as it infects adults. And kids become highly infectious. So I just want to point out an international level, this virus, whether it was a variant or not, a variant of concern, surely this pandemic is going to continue to march. But these variants have been game changers and in particular right now on an international level, understand, we are enduring the darkest days. Those that don't want to believe it, you know, that's your problem. If you go look at the numbers, it's painful to see what's happening globally. And we have to understand that that's the world we live in with this virus right now.

Chris Dall: [00:17:35] So moving on to the US, the seven day average of cases is up by more than 12 percent from the previous week, and we're seeing significant spikes in Michigan, some other Midwestern states and states in the Northeast. So given what you've laid out with B117 and the rest of the world, do you think we're going to see a hurricane here in the US? And will the current pace of vaccination in this country, which is around 2.8 million doses a day and is moving much more quickly than it is and the rest of the world, will that minimize the impact at all?

Michael Osterholm: [00:18:07] Let me just say at the outset here that I really commend the current administration for the efforts that they've put forward to maximize on vaccine manufacturing and its rapid dissemination in our communities. I think they have done a remarkable job and my hat is off to them. Any comments I make about inadequate vaccine supplies right now has nothing to do with something they could do something about. It's just the reality of we can only make it so fast. You can't build the Empire State Building in a week just because you want to. And so when we look at the good news

part of where we're at and this is the good news is these vaccines are remarkable, particularly in younger age populations. Meaning under sixty five at least, we are seeing continued data coming forward supporting 90/95 percent protection after several weeks. And in fact, this past week, a study released by CDC itself showed over 80 percent protection with one dose of vaccine several weeks after that dose, something that those who have been following this podcast know that that's been an issue very near and dear to my heart. Where are we at with vaccine in this country? What we're rolling out between 2.7 and 3.2 million doses a day, which will be like that for some weeks to come with big increases coming in late April/early May. But it's coming after we're going to see a surge of B117. At the current time, we have 15.8 percent of the US population vaccinated with both doses. And I say both doses because there's only been three plus million doses of the J&J one dose vaccine. We have 28.6 percent of the population has received at least one dose. Some protection there, as we've talked about. When we look at those 65 years of age and older, 49.2 percent have been fully vaccinated, 72.8 percent one dose. Now, you can look at that as the glass is half empty or half full. You know that I have been very concerned about this group because this is where we see such a high percentage of the serious illness, hospitalizations and deaths. And that 72.8 percent still leaves well over 15 million people, 65 years of age and older in this country that have not had a drop of vaccine yet. And that number is very, very, very slowly changing. And in part is because we're opening up vaccine clinics all over telling everybody they can come now. And so our seniors are fighting for these doses of vaccine that the supply is not enhancing, the supply is not getting bigger, it's just the fact we're letting more people get the vaccine. So this is the good news. Vaccines are coming. They're there and we're opening it up. But I do have to say we have to be a little bit careful, and the media has really missed this. And I think our governors are missing it. When we say we're going to open up eligibility to everybody, you know, 16 or 18 years of age and older, that seems like a victory. In many states, that is an admission of defeat in terms of vaccine rollout. Why do I say that? If you look at the 28 states that, as of earlier this week, had either opened up vaccine eligibility to all or were planning to do so in the next two weeks, 17 have below average adult vaccination rates, of which half of those are on the very bottom. If you also look that 11 of these lag behind all the other states in fully vaccinating those 65 years of age and older. What's happening is there is such a pressure to get vaccines administered, needles in the arm, that if you can't get people to come in who you really need to get to come in, who are high risk you just move on to another group and keep those numbers going and keep

those numbers going. But that doesn't mean you're vaccinating the most important people from a disease prevention standpoint in order. And at this point, that's the challenge. It's like the sixty five year olds and older. That number of seventy two percent that has had only one dose has changed only about 2.5 percent in the last 10 days. We're not seeing big increases there. So we have to be very careful to realize that vaccinating people in their homes, finding those who are vaccine hesitant in our communities and reaching out to them, that's going to take more time. But those are some of the most important people we have to vaccinate. So I hope at some point the media catches on to this and starts doing a more effective assessment of is a number just a number, but what does that number mean? And I think that's what we're really looking for right now. We need to vaccinate these high-risk people. And time is of the essence. So that's the good news though, the good news is we're getting vaccines out. We could do a better job. But let me talk about where we're at in this country. All the things I've been talking about for recent weeks are now coming together, so I'm not going to repeat a lot of this. If some of you, this is your first podcast, maybe you might want to go listen to the last one or the one before if you can stomach it, OK? But if you look right now, cases have risen in the U.S. by 12.3 percent in just the past week. Thirty four states and the District of Columbia report an increase in cases over the past seven days. Thirty four states and the D.C.. 18 states and D.C. are reporting increases greater than 20 percent over the past seven days. If you look at the number of deaths, the seven day average for daily deaths is no longer declining. It's plateaued at about a thousand deaths per day. Similarly, hospitalizations in the US are lower than they were in the January peak of one hundred and forty thousand, but they're now no longer declining. The seven day average of just under 40 thousand covid patients hospitalized is now increasing about 2.5 percent every week. What is notable is what we're seeing regionally in this country. Hospitalizations have fallen for 11 weeks nationally, but they're rising in twenty four states, up from 18 in the prior week. And the largest percentage increases were in Hawaii, fifty seven percent, and Michigan, forty nine percent. Why is this important? What we're beginning to see is a familiar story. Anyone who's been following this podcast knows that I have from the beginning of this pandemic, acknowledged with real humility I don't know why some of these things that are happening that are. Lots of my colleagues have full explanations for why, I don't know how they can say this. One, is why have we seen this pattern of regional occurrence of cases? If you go back and remember, in April of last year, we saw hot spots in New York, some in the Northeast, we saw some in the far northwest, Chicago,

Atlanta, New Orleans, Detroit got hit. And then things quieted down until May, middle of May, and the upper Midwest lit up. At that time, lower numbers, but they lit up. Our Memorial Day was the increased number of cases were there. Then they came down. And then what happened? In mid to late June, we saw the southern Sunbelt states light up from Southern California all the way to Georgia into South Carolina. And we then saw seventy two thousand cases a day in July. Well, those cases came back down again. Not sure exactly why. And what happened? By the time we were at Labor Day, we were back down to about twenty two to twenty three thousand cases reported a day. Big success from that high number we had. And then the upper Midwest took off again. For a period of time, states like North and South Dakota had the highest rates recognized in the world of cases. And we suddenly saw the national numbers rise to two hundred thousand cases a day, the first week in November. We were part of it right here in Minnesota. Then, for reasons I can't fully explain to you, those case numbers came back down again, such that by the first week of December we were back down to about one hundred twenty thousand cases a day in this country. And then guess what happened? The southern states lit up again, they did it in July and now they're doing it in January. And we hit almost three hundred thousand cases a day in January. Why? I don't know. And then it dropped precipitously, it's not like our behavior changed. It's not like somehow the weather changed. We don't know why that happened. But the bottom line is, is we've seen this upper Midwest, Northeast combined pattern and then the southern states take off. Where are we at right now? B117 is here. If we look at the number of states out there that are seeing major increases in B117, it's remarkable. For example, you know, if you look at Arizona, numbers are going up substantially, 14 percent increase in cases in the past week. If you look at Florida, numbers are going up now, almost the same as the number of non-B117 variant, case numbers up 12 percent this week. If you look at Indiana, Massachusetts, Michigan. Michigan is by far the most remarkable one with a rapid ascent to B117. And now they're up 52 percent in cases as I pointed out to you in the last week. Minnesota, the same way, we now have as many of the B117 as any other variant. We're up twenty eight percent. North Carolina we're up 10 percent. Variants are coming and B117 is taking off. Pennsylvania up thirty four. If you look at these numbers and you look at the locations, what you see is this pattern, particularly in the upper Midwest and the Northeast, contributing cases right now. And I am all just certain, I hope I'm wrong, that we're going to see this same pattern of the south light up again in the next few weeks. Kind of first the upper Midwest and the Northeast. Now, that's not seasonality. Seasonality would infer that the hemispheres are

different. Well, right now we're seeing transmission all over the world. Doesn't matter which side of the equator you're on. Number two, you're going to tell me that the big increase in cases in July and that same big increase in cases in January, all largely due to cases in the southern Sunbelt states, is seasonality? Are you going to tell me that people really are being more careful now? That's why the numbers came down? This is Mother Nature. Now, we can have an impact. So I don't want to have anybody misinterpret the fact that I'm saying don't do mitigation. We can hopefully keep the peak of those curves down. But we're not driving this tiger, remember? We're riding it. And so what I see happening is where B117 is taking off, it is now enhancing that same pattern that we've already had. And there is no place that I think illustrates that better than Michigan. I have heard from a number of colleagues via the media largely who think I'm full of canal water. And, you know, some days my kids would probably tell you there's some truth to that. But if you look at where we are right now with vaccine and people saying, "Well, wait a minute, though, you know, we got all this vaccine coming," please take a look at Michigan. As I pointed out, they've had now a 57 percent increase in daily cases over the past week. They have had one hundred and four percent increase in hospitalizations over the past 14 days. One hundred and four percent increase. If you look at where they're at now and how this hospitalization is increasing is being driven by young unvaccinated adults. Often these are the parents of, or the friends of, or the colleagues of, people with kids in schools, young kids. And this virus is making these people really sick. And it won't be long before we will see more cases in that older age group. Now, the vaccines are going to protect a lot of people for what limited amount we have. But for the oldest of our residents, the people who are particularly the frail elderly, we don't know how well these vaccines are going to work. If it's like flu vaccine, maybe we'll only get 50 percent protection. We don't know. But the real point of Michigan, which is the take-home message here, the next time somebody says "Vaccine, we're way ahead. Don't worry about it. We're different in the United States." Michigan, as of this week, has twenty eight percent of its population with at least one dose, 70.4 percent of those over 65 years of age, and 17 percent are fully vaccinated. Remember, nationally, the average of fully vaccinated is 15.8 and 28.6 with one dose. They are equivalent or exceed all the national average. So you know what, that vaccine isn't slowing things down in Michigan much. It's because there still are so many people who are susceptible to the virus. 50 percent or more of the people in the upper Midwest, despite a year's worth of transmission, despite what vaccines have been delivered, are still susceptible to this virus. That's true through most of the country. That's why we're

going to continue to see this. So you can't take your eyes off of the prize. And the prize is getting to vaccine without getting infected. No one on this podcast can, should or may have permission to die three days before they were scheduled to get their first dose. Not permitted. We got to hang together and get through this. But know we're going to see a surge of cases. How high? I don't know. We are up with vaccine and hopefully that's going to take some pressure off. But you're seeing what's happening in Michigan right now. So at that point, we're going to have a challenge. The second point of it is the kids are going to be in a different environment over the course of the next weeks. We've just spent all this time preparing kids to go back to school. We've had CDC come out with all these recommendations, all of them written before B117. None of them take into account this new change in infectivity, this new ability to transmit the virus, this new issue of illness and kids. We are like the pandemic starting all over again relative to schools. Please understand that this is not someone who is pro school or anti school. This is not someone who has a very hard philosophical bend to say you can't do this or you must do this. This is all about new data. This is all about a new environment. This is why this podcast is about the kids. We've got to take care of them and we need to take care of the teachers, too, who are fortunately getting vaccinated. And the vaccines will cover B117. But the bottom line, it's about the kids and transmission in our communities. So, Chris, to sum it up, at this point, we don't know where we're going in this country. But I can tell you one thing. No other country in the world who is facing escalating B117 case numbers is loosening everything up. They're pretending the virus doesn't exist anymore. Nobody is doing that. The only places are at all lightening up on their restrictions are countries like the United Kingdom, where they really finally brought it under control, where they vaccinated a large segment of the population with one dose of vaccine and where they've been in lockdown for many months. So at this point, we are creating a perfect storm. We've got a bad, bad virus, we got a lot of people still yet who can be infected despite vaccines arriving and we are now opening up as if somehow we're done with the virus. It's like we're dismissing gravity. I don't want to deal with gravity any more today. I'm done with it. Sorry, it doesn't work that way. So I hope all of you listening to this also can adapt to these new conditions, this is what we're getting at. But I also want you to keep your eye on the prize. Vaccines are coming, they're highly effective against this particular variant, and if we can just get through the next weeks, we are going to be able to get so many of you vaccinated and protected against B117.

Chris Dall: [00:34:59] So I quoted Dr. Walensky in my intro, and as many of our listeners likely know, it wasn't just her words but her tone that made news. She was visibly emotional. So, Mike, do you think her words and tone were warranted? And at a time when many states are loosening restrictions, they're ending their mask mandates, will her comments have any impact?

Michael Osterholm: [00:35:22] Well, let me disclose a bias right up front. I think this is very important. I believe that Rochelle Walensky is one of the greatest assets and gifts to public health we have today. She has such integrity. She's a brilliant clinician, very, very smart Dr.. She's in touch with people at all levels of life, whether it's her patients, whether it's her colleagues, people in public health. And what you saw was raw emotion informed by good science. And my hat is off to her to be able to share that kind of emotion, and I know people on this podcast get this. It's a powerful, powerful message. When someone cares not only enough to tell the truth, but they tell it with passion. And that's what she did, and so I know she's taking criticism from some who thought that she was exaggerating the situation, she's not. She's not at all. And I congratulate her. I thank her for her leadership. She is such a refreshing voice at CDC. And I think that we're going to need her leadership in every way possible going forward over the days ahead.

Chris Dall: [00:36:47] I want to go back to your decision to delay your second dose of the vaccine, which you told our listeners about a few episodes ago, because we've been getting some questions about that from our listeners. Can you give us an update?

Michael Osterholm: [00:37:00] I'd be happy to give you an update. And as I've said on multiple occasions in this podcast, the older I get, the more vulnerable I am to learning. And this is one of those examples. Now, what I learned is not what I'd hopefully learn, and that is that science could be trumped by policy, not the other way around. And despite the fact that the data are there to support, just as they did in England, that one dose approaches could vaccinate many more people, protect them against surges or these increasing occurrence of cases. We have elected not to. We have seen no response on the federal government's part to deal with this issue whatsoever. As you know, Canada is actually extending the one dose and clearly other countries are looking at it, just as Great Britain has done. Now, remember, none of us talked about only one dose. We're talking about a delayed second dose. And I worry that we could have

vaccinated many more people over the last six weeks. That would be much, much better protected going into the surge of B117. All my worst fears are being realized. Knowing that vaccine was readily available and it wasn't keeping people from getting vaccinated, I decided to go ahead and get vaccinated because I very much believe in this vaccine. In fact, it was a little bit challenging for me because I decided last Saturday to get vaccinated and I literally got on the Internet and didn't really know where I was going and just plugged into the first pharmacy and I had an appointment that afternoon. It was crazy. I now have both doses now. I'm happy with that. But I would have very, very gladly given that dose to someone who could have used it to be protected, for which they now won't get protected coming with the surge of B117. But I also don't see a system that's capable of responding to that from extending the vaccines. And I think that one day we'll go back and realize that was a mistake. I might add that one of the great arguments about not doing that was that we would help further the development of variants. And just this week, a very good paper came out from a group in Boston, Mark Lipsitch, who's a member of the of the group, a dear friend and colleague, one of the brightest people I know in the business, actually developed a model and looked at the issue of what would further the development of variants. Getting vaccinated and not getting infected, or having double vaccination with some people not getting vaccine, but others with a higher level of protection. And they came up away with the conclusion that actually the single dose would have been the better way to go. So it flew in the face of even what many critics had said was a fallacy of this approach. So we're now stuck with what we're stuck with. We're going to keep vaccinating, double vaccinating. That's why, again, I remind the media in particular, if you're listing out the number of doses given a day, please clarify when you say three million people got vaccinated today. That is 1.5 million new people got vaccinated today. The other 1.5, we're just getting their second dose. That's surely a much slower process than we see than most people believe is happening.

Chris Dall: [00:40:39] So switching gears now, earlier this week, the World Health Organization released the findings of its investigation into the origins of the sars-cov-2 virus, and we have a listener question on this very issue. Yvonne writes, "Of late, I'm being asked about the WHO investigation into the origin of the virus's transmission to humans. Could you provide your thoughts about the WHO investigation and other evidence or science that might inform our knowledge of that etiology?" Mike, what was the main takeaway of the WHO's report issued this week and what did you make of it?

Michael Osterholm: [00:41:13] Let me give you some background first about where I come from approaching this issue. This has been an area of grave concern to me. The idea of where do these infectious agents come from? I wrote about that in my book in 2017 *Deadliest Enemy: Our War Against Killer Germs*. I served for seven years on the National Science Advisory Board for Biosecurity in the US government, which I did a lot of work looking at laboratory safety and studies where we do what we call gain of function, you enhance an organism's ability to be transmitted or to cause more severe disease with the idea you could study that and that will help you then be better prepared for when the real one comes along. But if it gets out, oh wow. And so I find this is a very, very important issue. But let me also add a dose of reality. Remember 2001? After the World Trade Center towers attack, we had the anthrax attack. The envelopes that were mailed where we actually had 22 cases of anthrax, five deaths and an investigation that lasted for years with many starts and stops. Many, how should I say it, assumptions made by those who were in charge of the investigation. At one point, the FBI had interviewed over nine thousand people, had executed sixty seven search warrants and had issued over 6000 subpoenas to try to get to the bottom of this. There were those early on were convinced the Al-Qaeda had something to do with it and had an entire story around one of the individuals involved in the attack who was training in Florida, who they believed had cutaneous anthrax and proved the point that the Al-Qaeda were also involved with the idea of the anthrax attack. There was another scientist, a U.S. government scientist, that was targeted, that ultimately ended up suing the government for its statements about him. And won. He was actually finally vindicated by the FBI saying, no, he wasn't the source. And then we actually had a government researcher at Fort Detrick who many believed was the ultimate source of this. Others still challenge it. After all these years within our own government, so nobody is applying pressure from the outside, nobody's coming into our country doing this investigation, and we still have challenges with that. We don't exactly know what happened and how and why and where. Now, fast forward to China. Imagine if that virus had actually started in Seattle. Or Minneapolis or Atlanta. Would we have invited the Chinese and the Russians in to help us investigate it? Would we assume that the rest of the world had absolute authority to come in and take over whatever we were doing to be in charge? And how transparent would we be from a national standpoint? And I always point this out because I'm not trying to defend China at all. I'm merely trying to lay out the playing field we live in today. And so what's happening in China and how they've responded to this

situation has been unfortunate. And I thought that Bob Rebfield's comments on the CNN special with Sanjay Gupta were irresponsible. Because he said that based on his he felt certain that the lab was the source for this. And he gave some explanations about the virus like this wouldn't be that fit if it hadn't been worked on in a laboratory, which is nonsense. And I'll cover that more in a moment. But at the same time, we haven't had all the information that we need. And the WHO team that went in to China recently issued the report this week, noted the shortcomings of what was there. But as a scientist, I also look for what information, what I need, what would tell me that there was or wasn't likely a lab related aspect to this? I have no doubt that the virus was circulating in China before it was discovered in the Wuhan market in December. Could be in for several months before that, don't even know the Wuhan had to be the source of it at that point. But the laboratory researchers at the Wuhan Biologic Institute are really well known internationally. Very capable, competent researchers. And it was noted and this is actually in the report, which anybody had read this this is a very, very important statement that, in fact, all the people, the workers and the students who worked for Professor Shi, who is the woman who is often referred to affectionately as the Bat Woman, where SARS-like viruses are being worked on, every one of her researchers, and that could be confirmed, had sera available, blood samples, stored away from April, 2019 up through March, 2020. So with the entire time period that this virus would have evolved and gotten out. All of them were tested, everyone was negative for sars-cov-2 antibody. Now, if there had been a leak of the virus in that lab, somebody would have gotten infected. Remember, that's how it would have had to get out. Somebody got infected and took it out unknowingly into the community. Or if someone basically intentionally trying to use it and we're around the virus. Would they not likely have gotten infected themselves? And so the fact that there wasn't any evidence that anyone in that lab was infected says right there it wasn't likely an accidental release. In addition, they were able to confirm that, in fact, there are only three SARS like viruses cultured in the laboratory. None were close related to sars-cov-2. The only sars-cov-2 like virus was found by the group is one which was neither a live virus nor the progenitor of sars-cov-2. Now, that's really important information to me, the skeptic. I'm skeptical. Now, do we want more information about what was happening in the community before the market? I think the market may have just been a place that the virus got enhanced in terms of transmission, because the number of people there. I'm not sure the market really had anything to do with where it started. At the same time, we have increasing ample evidence that, in fact, the virus that is a progenitor, likely the kind of, you might

say, the one right before the one, is wide spread through Asia. In a paper published by a dear friend and colleague, Linfa Wang just several months ago looked at the evidence for sars-cov-2 related coronaviruses circulating in bats and pangolins in Southeast Asia. It's there. The virus that's really close to the one that jumped into us is there. As a result of human contact, we've had a jump from us back to dogs and cats, ferrets, mink, rabbits, gorillas, even tigers. So we already see how readily this moves between animals and humans, so why would we be surprised that this would jump from an animal into a human? And is present in nature in many locations in Asia? So I come back to this. I don't see any mounting evidence that the lab played any role in this. And I do see a real role for Mother Nature just as with SARS and MERS did the same thing. But I think the most important message here is, is that if we get caught up in the politics of this, you know, they did it wrong, we did it right, we'll never get to the bottom of what happened. And from a public health perspective, I want to. Because, what can I do? What can any of us do to try to make sure that this doesn't happen again? We got to understand why it happened. And a report that was issued this past week by a group of 14 nations basically laid out the fact that, yes, there was, in fact, concern about this whole investigation. They went on to say, "Together, we support a transparent, independent analysis and evaluation free from interference and undue influence of the origins of the covid-19 pandemic." Well, I agree the Chinese haven't done that yet. They've interfered. "In this regard, we join in expressing a shared concern regarding the recent WHO convened study in China, while at the same time reinforcing the importance of working together towards the development and use of the swift, effective, transparent, science-based and independent process for international evaluations of such outbreaks of unknown origin in the future." And again, I just want to point out one last time, what if this had happened in the US? Would we have readily, as a government, opened up everything we had to the Chinese, and to the Russians and whoever else was part of this team? I don't think so. So I don't want us not to strive to get this information, but a dose of reality. And let me just conclude in this, everyone who has been listening to this podcast for more than a few weeks knows that one of my colleagues, who I have great respect for and who I believe has been a source of incredibly important information in this pandemic, is Kristian Andersen an immunologist at Scripps. And he wrote in the text this week with regard to the WHO report. He said, "The long awaited WHO report on the global study of origins of sars-cov-2 is out. It's comprehensive, scientific and provides new insights into early events while still leaving questions open with need for further study." And I think that sums it up very well. So I

look forward to these additional studies. I surely hope that the Chinese cooperate and collaborate, and I hope that we don't jump to conclusions like Bob Redfield did, which, again, as I say, I thought was really a very, very unfortunate situation without really having any data to support his point.

Chris Dall: [00:51:49] Now to our acts of kindness update. This week, we have a child centered act of kindness, and I know the ones featuring children are among your favorites, Mike. So can you share it with our audience?

Michael Osterholm: [00:52:01] It is all about the children, isn't it? There are so many on this podcast that get this. The kids and grandkids, I mean, they're the ones that can bring sunshine on a cloudy day. When they hurt, we hurt. And so when you can see an act of kindness and something so wonderful with kids, it's got to be among the best of the moments of life. And we have one here. This is an email that came from Kathy. Pandemic of kindness. She writes, and I'm editing this a little bit, "Dear Dr. Osterholm and CIDRAP team, my husband Mark and I look forward to listening to your informative podcast every Thursday going back to last March. Mark and I are incredibly blessed to have four grown children, three of whom are married, great son-in-laws and five beautiful grandchildren, sixth one on the way. We're both retired, me from a career as a middle school teacher and Mark from an insurance business he owned in our town. I wanted to share an act of kindness for my daughter's family. I share it with you as a small thank you for all you and your team do for us. This act of kindness to spread a little joy comes from our daughter Michelle and her son-in-law, Jake, and one of the two sweet daughters, a two and a half year old, Teagan." And Michelle's words, "Taking to social media has become a crutch for so many of us these days in whatever downtime we have, and it's so often we aren't seeing encouraging or uplifting news coming out of our endless scrolling. Using it as a way to spread kindness and a little bit of joy seemed an easy way to connect with my community online and help bring the mood up a bit. So, I volunteered my toddler's artistic talents and pulled my Instagram followers to see who wanted to receive an original piece of art by way of the good ol' U.S. Postal Service. By the end of the week, we had received nearly two dozen requests. My husband worked with our toddler to create the art, and she and I signed every piece, sealed all the envelopes, stuck on all the stamps, her favorite part, and waited patiently in line with our masks up to get them sent on their merry way. We received happy messages from everyone who got their artwork in the mail over the last couple of weeks and are excited

for more opportunities to keep sharing simple happiness out with our friends around the country. Here are a few examples of Teagan's beautiful artwork mailed out during this sometimes very dark pandemic to help provide light to each recipient's day." The pictures are stunningly beautiful. I'm actually very touched that a two and a half year old could do this, a heart. So many different pieces of it. And I just have to close because Kathy said, "Thank you again, Dr. Osterholm, for all you. Do getting through this together, Kathy." But she actually had a little note at the end of the letter, which I think is part of her every signature block email. And I thought it was so powerful in of itself, I just had to also share this with you. It says, a friend is someone who knows the song in your heart and can sing it back to you when you have forgotten the words," Bernard Meltzer. What an incredibly beautiful, beautiful comment. So thank you very much, Kathy. Thank you, Teagan. Thank you, all of you, for sharing this very, very beautiful piece. It means a lot. Thank you.

Chris Dall: [00:55:34] And just a reminder to our listeners that if you want to share your pandemic act of kindness with us, please email us at osterholmupdate@umn.edu. Your closing thoughts today, Mike?

Michael Osterholm: [00:55:45] Thank you, Chris. And before I go on my final thoughts, I just want to wish another Chris a speedy recovery. So we're thinking of you, Chris. In terms of this podcast today, I hope you got the sense of how important we understand our children to be and what a role they are now playing in this pandemic and how we're making decisions about not only their education but their health and safety in ways that we've not had to do before. I understand more than I can put into words as a grandfather the urgency of getting our kids back into school. We've talked about that. I'm a strong proponent of getting kids back into education as quickly as possible for all the things that they're missing. But I'm also a scientist and a realist. And in that regard, the B117 variant has created a fundamental change in the equation about what to do with kids. This is a big change from just where we were a few months ago. And previously I had included words of wisdom from someone in the education world that I have come to greatly admire and find to be an inspiration. On Episode 38 on January 7th, and that episode Places We've Never Been, I actually shared with you the words from Teresa Thayer Snyder. Dr. Snyder is a school superintendent of many years in upstate New York. She's highly respected around the country for her expertise in education. As I described it back then, who she was, I shared with you terms that had

been provided to me by some of her colleagues, where they basically said that Dr. Synder is often described as a fearless and tireless advocate for public school students and her distinguished career spanning more than 40 years in public schools throughout New York's capital district. She emerged as an articulate voice of reason at the statewide level regarding the implementation of Common Core learning standards. She is one of the state's boldest education leaders. Her focus has always been on the students. In addition, she was described by the dean of the University of Albany School of Education as the following: "Ask Dr. Snyder any question about education and prepare to enjoy a profoundly reflective, creative, passionate learner-centered and well-informed conversation." This is the Teresa Thayer Snyder that I have come to know. Someone who has been so kind in sharing her wisdom with me and someone who I've learned so much from. I want to share with you today a letter that she wrote and published publicly around the issue of students and the reflection of what we are now facing with regards to this next new round of covid activities and our schools. This is something we must keep front and center as we think about the B117 situation. So please, just let Dr. Snyder share with us how we should be looking at our current educational experiences. She writes, "Dear friends and colleagues. I'm writing today about the children of this pandemic. After a lifetime of working among the young, I feel compelled to address the concerns that are being expressed by so many of my peers about the deficits the children will demonstrate when they finally return to school. My goodness, what a disconcerting thing to be concerned about in the face of a pandemic which is affecting millions of people around the world. It speaks to one of my biggest fears for children when they return. In our determination to catch them up, I fear that we will lose who they are and what they have learned during this unprecedented era. What on earth are we trying to catch them up on? The models no longer apply. The benchmarks will no longer be valid. The trend analyses have been interrupted. We must not forget that those arbitrary measures were established by people, not ordained by God. We can make those invalid measures as obsolete as a crank up telephone. They simply do not apply. When children return to school, they will have returned with a new history that we will need to help them identify and make sense of. When the children return to school, we will need to listen to them, let their stories be told. They have endured a year that has had no parallel in modern times. There is no assessment that applies to who they are or what they have learned. Remember, their brains did not go into hibernation during this year. Their brains may have not been focused on traditional school material, but they did not stop either. Their brains may have been focused on

where the next meal is coming from, or how to care for a younger sibling, or how to deal with their missing grandma, or how it feels to have to surrender a beloved pet, or how to deal with death. Our job is to welcome them back and help them write that history. I sincerely plead with my colleagues to surrender to the artificial constructs that measure achievement and greet the children where they are, not where we think they should be. Greet them with art supplies and writing materials and music and dance and so many other avenues to help them express what has happened to them in their lives during this horrific year. Greet them with stories and books that will help them make sense of an upside down world. They missed you. They did not miss the test prep. They did not miss the worksheets. They did not miss the reading groups. They did not miss the homework. They missed you. Resist the pressure from whatever powers that be who are in a hurry to fix kids and make up for that lost time. The time was not lost. It was invested in surviving a historic period of time in their lives. In our lives. The children do not need to be fixed. They are not broken. They need to be heard. They need to be given as many tools as we can provide to nurture resilience and help them adjust to a post-pandemic world. Being a teacher is an essential connection between what is and what can be. Please, let what can be demonstrate that our children have so much to share about the world they live in and in helping them make sense of what for all of us has been unimaginable. This will help them and will help us achieve a lot more than what can be measured by any assessment tool ever devised. Peace to all who work with the children, Teresa Thayer Snyder." I can't imagine anyone can say this better. So we're going to be confronted over the days ahead with the challenges of schools that are likely going to be closed again in terms of in-person learning. The outbreaks are real. They are spreading. They will continue to spread. Children will get sick. Very likely some of these children will die. This will be tough. But if we can do it with kindness, grace and understanding, our children will get through it in a much, much easier way. So I hope that as we think about the days ahead and what's going to happen with the schools, what's going to happen to B117, that we not forget these very, very thoughtful words of Dr. Snyder. So with that, I want to close and just thank you again for being with us this week. I hope that this podcast has given you some better understanding of where we're at with this virus. I know it's a complicated time. I know that we're all ready to be done with this. Oh, do we want to be done with this? But we're not. And we have to confront where we're at with honesty and with a plan. We're all going to get through this. We all can help each other get through this, and we must never forget that. So

please be kind. Be thoughtful. Help others and most of all, remember, you can help yourself get to those vaccines. Thank you.

Chris Dall: [01:04:24] Thanks for listening to this week's episode of the Osterholm Update. If you're enjoying the podcast, please subscribe, rate and review. And be sure to keep up with the latest covid-19 news by visiting our website CIDRAP.umn.edu. The Osterholm Update is produced by Maya Peters, Cory Anderson and Angela Ulrich.