

Episode 46: Winnable Moments

Chris Dall: [00:00:05] 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.

Chris Dall: [00:00:42] As has been the case throughout the early part of 2021, the end of February and the beginning of March were marked by signs of covid-19 optimism and covid-19 pessimism. On the optimistic side, there was the emergency use authorization of Johnson and Johnson's covid-19 vaccine, a single dose vaccine that can be shipped and stored at regular refrigeration temperatures, and will give health providers a more agile tool for immunizing people in a range of settings. On the pessimistic side, the decline in US cases that began in January appears to be plateauing at a high level, while global cases rose for the first time in seven weeks, with new surges being driven in part by coronavirus variants, easing of pandemic restrictions, and people letting down their guard. "Please hear me clearly. At this level of cases with variants spreading, we stand to completely lose the hard earned ground we have gained," CDC director Rochelle Walensky said at a Monday press briefing. On this March 4th episode of the Osterholm Update, we'll be exploring this theme of optimism and pessimism as we discuss the authorization of the Johnson and Johnson vaccine and what it means for the US immunization effort, the concerning trends in US and global covid-19 cases, and the rising threat of coronavirus variants. We'll also answer a listener email on the effectiveness of masks and highlight a pandemic act of kindness from one of our listeners. But first, we'll begin with Dr. Osterholm's opening comments and dedication.

Michael Osterholm: [00:02:06] Thank you, Chris, and welcome to all of you again to another edition of the Osterholm Update. We are so pleased that you could join us. As we know, you have many options for getting your information about covid-19. And so it's always a pleasure to have you with us. And most of all, I'd like to welcome back members of what we've now affectionately come to know as the podcast family. Those of you who communicate with us regularly, you are a very, very special part of what we

do at CIDRAP and the work that you do in our communities with the pandemic of kindness really are a gift to all of us. And so thank you so much for being with us. Let me start out by saying, as we look at dedications, we actually have come to the point of coming back a second time around for some of the dedications we've had since we started this podcast almost a year ago. And every one of these dedications is heartfelt and one that is targeted for a specific reason for the pain and suffering you may be experiencing in the podcast, the efforts you make to make it a better world during the pandemic. And this week, we want to dedicate this again, just as we did on August 20th on our 20th podcast, to the live entertainment industry. That's not just the performers, that's everyone who makes it possible for live entertainment to happen. And I'm specifically addressing those who make that happen. But also I'm offering this dedication on behalf of so many individuals that know that their life will have come to a new place when they can go back into those venues and feel the emotion, feel the excitement, feel the energy of live entertainment. And for those of you whose jobs may not be being on the stage but making all other aspects of live entertainment happen, we can't wait to see you back there. And so I offer this as a dedication to the live entertainment industry and on behalf of all of us who can't wait to get back there. I literally can't wait for the first time I can be in a public venue at a live entertainment event and feel that sense of it's OK, it's right to be here. So we dedicate this one to you. Help us get back. We need you. We want you. Also, I'm very happy to report the fact that as we get into this week's podcast that our light length only continues to grow. This week, March 4th, we will have 11 hours and 22 minutes of sunlight. That's twenty two minutes just in the last week we've gained. We've now gained two hours and thirty six minutes since the spring or vernal equinox. Now, I have to add a caveat into this, because our podcast family extends around the world and I'm hearing from a number of you who are down under reminding me that it's getting darker there and it's getting darker at a pretty fast speed. So we would love to share our light with you. And next winter, as we're getting dark, you can share your light with us. So we haven't forgotten you down under folks, and appreciate the fact you're with us on this podcast every week and recognize that light is a wonderful thing wherever you find it. And we'll take more of it here right now. You had your share for a while down there, but we also recognize that we all want it. And so we share this light with you. You know, after thinking a lot about how to structure this week's podcast, we actually, believe it or not to the audience, this is not just some spontaneous moment of me just talking, but that, in fact, the podcast crew works hard to, you might say, prop me up and put me in front of this microphone

and give me something thoughtful to say. But as we were looking for how to cast this week's podcast, we came upon a very simple, simple idea. We've titled this week's episode Winnable Moments. You'll see why at the end of the episode. But for now, let's just start with last week's title, which was Watchful Waiting. That's still our situation. We're still hoping the pandemic is ending, yet knowing that there will be a new surge of cases in the days ahead. There will be. A month ago, we established the Category five hurricane metaphor. With the hurricane, of course, being the approaching impact of the variants of covid-19, particularly the B117, it still fits. The hurricane is now seventy five to one hundred miles away, not four hundred and fifty or five hundred miles away. It's on course to deliver a direct hit to us right now. The question that I face every hour as I think about this, will that hurricane downgrade before landfall? And right now, I think there is little evidence that it is going to downgrade significantly if it does at all. From the very start of the pandemic, the science world has been forced to deal with how much we simply do not yet know about this virus. I couldn't say it any more clearly than that. What we do not know about this virus. Last week I talked about this a bit at the same time that an article from Pulitzer Prize winning physician Siddhartha Mukherjee appeared in The New Yorker entitled 'Why Does the Pandemic Seem to be Hitting Some Countries Harder than Others?' He presented the same basic story as you have heard from me, there's just so much we are still learning. Today calling balls and strikes in this pandemic, something I take very seriously in these podcasts, also means sometimes acknowledging I didn't get a good look at the pitch and I just don't know the answer. As you probably know, for the past six to seven weeks, I've been very focused on my belief that we need to go into an emergency mode because of what is the approaching disaster with the B117 variant. I've been recommending that the United States delay any second doses of the vaccines to those not yet vaccinated with their first dose and instead concentrate on getting the maximum number of people 65 years of age or older vaccinated a single time. As you've heard me say multiple times, age is the single greatest risk factor for serious illness, hospitalization and death. 80 percent of all the covid-19 deaths occur in those sixty five years of age and older. And contrary to what some experts claim, the rapidly growing body of data support a single dose of either the Pfizer or Moderna vaccines can dramatically reduce illness and in particular, serious illness, hospitalizations and deaths in those sixty five years of age or older. As you know, last week we released our CIDRAP position paper, I'll cover this issue in more detail later. But for now, let me just say, I believe we've lost our opportunity to save many lives in the weeks ahead. We will need to go back and examine what we did and

didn't do. This week, I'm going to break the main body of the podcast into four chapters, they're going to take you on a little bit of a journey. We'll start with chapter one, which I'm calling, 'We Are On Our Way'. It's the good news of increasing numbers of vaccinations. You'll wish we could go further than the good news, but the world is not perfect. So we'll have to consider some detours hitting, some pretty big potholes, and even finding a bridge or two that are out. Chapter two is 'The Approaching Hurricane'. It'll be about the hurricane we have hoped and prayed we could miss, meaning the approach of a B117 surge, which I'll update you on in a moment. There is no mistaking the approaching dark clouds are coming. Which will take us to chapter three titled 'I Can't Do This'. It's basically about our mental health. It's a glimpse into my mental health. We've been through a long, long year. Some people feel they're at the end of their wits and they're saying to themselves, "I can't do this". And yet we must keep going because of chapter four, Winnable Moments. It's the big payoff at the end, which we all have to make it to, and you'll hear why. Welcome to our podcast journey this week.

Chris Dall: [00:11:01] All right, so let's start with chapter one, We're On Our Way. We're seeing around 1.8 million vaccinations a day in the US right now, we have the newly authorized Johnson and Johnson vaccine rolling out this week, and President Biden announced there will be enough vaccine supply for all Americans by the end of May. There is cause for optimism here, is there not Mike?

Michael Osterholm: [00:11:22] There is cause for optimism, but there are also caveats that we have to understand that stand between us and the final realization of that optimism. As you noted, case numbers continue to be high relative to any other time in the pandemic, 50 to 60 thousand new cases a day. Fourteen hundred to two thousand deaths. And we still see forty five to fifty thousand people hospitalized. Now, remember, just six months ago, this would have been considered a house on fire moment in this country. Now we're hoping that this is it. It's on its way down, it's out. Again, I continue to hear from the media over and over again in the past two weeks, you know are you sure you really want to say these things about what's happening? Look at how good the news is. New vaccines, case numbers are coming down. What does this all mean? Well, this is where when I say we're on our way, we have to look at the following. One, we will have, I believe, enough vaccine in this country for virtually every person for which the vaccine is approved, meaning those from teenage years and older by the end

of May as the president has said. I give high, high marks to this administration for working so closely with the manufacturers of the three approved vaccines. And as you heard this week, also bringing in the Merck Company to work with Johnson and Johnson to actually produce more of their vaccine. I think this is the very best of the kind of leadership we need right now from the federal government. But the problem is between now and the time that we're going to get that vaccine in May, we got a really, really rough spot coming ahead. So let me just lay out the vaccine situation between now and that time period and what that means. As of today, we have about twenty six million people in this country who have been fully vaccinated slightly between 7.5 and 8 percent of the population. If we look at the people who have received one dose, which if you know, from listening to me, I still think that's a very, very positive thing. That's fifty one million people. Together these two add up to about twenty two to twenty three percent of the population. If you add that together with potential thirty five percent of the population, at best, that may be in fact protected with antibody from previous infection, and that is on the high end of that number of what are out there, that's somewhere in the neighborhood, in the neighborhood, of maybe forty five percent of our population that would be protected. That means we still have fifty five percent or more of us that are vulnerable to this virus a year into the pandemic. Think of all the cases, all the deaths, all the suffering, all the pain that we've gone through in the past year. And it's maybe gotten us to forty five percent of the population protected. And now we have the situation with this B117 variant coming, which is much more infectious, which means the herd immunity level is going to be substantially higher than likely the sixty five to seventy five percent estimate we made before. It could very well be in the 80s to 90s. And remember, even when we hit those numbers, that just means transmission slows down. It doesn't stop. So we're confronted with this right now and we have the vaccines we have currently we see approximately 1.7 to 1.8 million doses of vaccine arrive in a day. We've ironed out a lot of the challenges in distributing that vaccine. But in fact, we still are far short of what we would want to have in people's arms with the impending B117 surge about to come. But let me just add some detail to the vaccines we do have because there's been a lot of confusion, I think, about the Moderna and Pfizer vaccines and what it means and who has gotten them. First, let me just cover the issue with the J&J vaccine. I think people are very confused right now about is this a good vaccine or is it an average vaccine compared to Moderna and Pfizer? And it did in the US clinical trials show about a seventy two percent efficacy or prevention of clinical disease versus the Moderna and Pfizer vaccines, which were closer to 90 percent. And people can say

right away, "Look at, you know, I don't want this vaccine." I will be the first to say there's differences there, make no mistake about it. But what was clear is there was eighty five percent efficacy against the severe forms of covid-19 and one hundred percent efficacy against hospitalization and death. I think the best path forward for us right now in understanding these vaccines is to understand what are their relative strengths? J&J is clearly easier to transport and store, and it's a single dose. The mRNA vaccines have an apparent higher efficacy, but they also are much more complicated to use. So in the end, I think that there will be areas of the country that will get the J&J vaccine. And I would say you did not get an inferior vaccine. You got one that actually worked in getting to a rural area, in areas that are hard to otherwise get vaccines to and very hard to get second doses into people. So to me, I think both of these vaccines should be used. I think we got to stop saying there's not some differences between them because in fact, there are some. But when it comes to the most critical measure of efficacy against severe illness, hospitalization and death, they are the same. And I'd sure want to have one of those in one of my loved ones than not have anything in them, and I think that's important. The other part that I just wanted to emphasize, and we'll talk more about this as we talk about the variants is who's getting vaccinated? As of today, we believe that about 14 percent of the U.S. population has received at least one dose of the vaccine. I mentioned that before. And for people sixty five years of age and older, the vaccination rate appears to be higher than forty one percent. That, too, is very, very good in terms of protecting that group. But the problem with it is, is that when you look at this group overall and who will get vaccine over the upcoming weeks, if we keep at the same pace we are, we estimate that a strategy that prioritizes 50 percent of the vaccine supply for 65 years of age and older will still leave twenty three million unvaccinated individuals 65 years of age and older through this next surge. That remains a huge challenge, so we hope that we can increase the number of people in that older age group who are vaccinated. I acknowledge this does not address the critical equity issue for vaccine distribution by race, by ethnicity, by some who have underlying health problems. But as a public health person, I'm sitting here saying, how can we save the most number of lives? And that's just straightforward, no doubt about that's the case. So in the meantime, I hope what we can continue to do is target as many individuals as possible to get the vaccine. At this point, I just don't see us addressing the issue of deferring a dose until after the surge. And I don't see us addressing the, what I believe is needless second dosage administration for people who previously had covid or for that matter, why we're continuing to use the high dose

Moderna vaccine when we know a half dose will provide us with great protection. So we're on our way. This is a good thing. The vaccines are really, really important.

Chris Dall: [00:19:38] Just a quick follow up on that last point, Mike, has there been any movement on the delayed second dose strategy that you've been advocating for?

Michael Osterholm: [00:19:47] I wish I could say there had been, but there hasn't. The Advisory Committee on Immunization Practices of the CDC when they met last Sunday and Monday to consider recommendations for the J&J vaccine, and just in general, the vaccine program determined that they would need more data before they could make such a decision. I strongly disagree with that. I think the data are clear and compelling. There have been a number of studies that have come out over the course of the past 10 days addressing this issue. One today, another one from England. In the over 80s population, the data supported that a single dose of either the Pfizer vaccine or the AstraZeneca vaccine is more than 80 percent effective at preventing hospitalization around three to four weeks after the shot. There's also evidence of the Pfizer vaccine, which suggests it leads to at least an 83 three percent reduction in deaths at the same time period. The data also show symptomatic infections in those over 70 decreasing from around three weeks after one dose of both vaccines. This is one of a number of studies that have come out recently that those data were all in the works. Remember, you know, five weeks ago, I kept saying there are data to be evaluated that are not part of the emergency use authorization process. And there were those in our government and other areas kept saying, "No, no, no, we have to stick with the science. We have to go with the data that was filed last fall." Now, all this data that's been published in the last several weeks were the data I was talking about over the course of the past five to six weeks that could have been evaluated. I just find this unconscionable that there wasn't an effort made to at least closely evaluate this information, and if it didn't bear out what I think it would or many of my colleagues do, then so be it. But just to summarily dismiss it by saying, "Well, there's a risk of doing it, a risk not." That's not an answer. That's not an answer. And if the audience here on this podcast feels the energy in my voice right now, it's real. And it's real because there are people's grandfathers and grandmothers and fathers and mothers and brothers and sisters who I believe will be put in harm's way during this upcoming surge, that didn't have to be. So I know this is a legacy issue that I will long remember. In my career, at least, I can never recall another time like this where I think that the whole approach of our public health messaging was,

in fact, derailed, not on science, but on individual's lack of willingness to consider data when we needed to. And I hope one day we learn this lesson. And I hope, let me just say, I hope even more I'm wrong. I hope I'm dead wrong. And I hope that, you know, two months from now, you say "Never going to listen to that guy again. He was a wing nut." But I care so much about this, I care. Because these are real people's grandparents, moms and dads, brothers and sisters, aunts and uncles that could be protected. So I'll leave it at that to say I don't know how much further we can go with this. Like I said, I think if even today the US government was to reconsider this and approach this from an objective, database driven standpoint as an emergency priority, I think the time is almost too late, as I'll share with you in a moment. And we have to understand that the window of opportunity that we had was lost because of our inaction.

Chris Dall: [00:23:43] So now chapter two, The Approaching Hurricane. As we've both noted, the decline in US cases seems to have flattened out at around 70000 new daily infections. Globally, cases are rising and four of the WHO's six regions in variant cases, particularly the B117 variant, are climbing. Is this the beginning of another surge?

Michael Osterholm: [00:24:05] This is absolutely the beginning of another surge. And it's that watching and waiting, watching and waiting, watching and waiting. We started talking about the B117 variant surge on this podcast weeks and weeks ago, back when the percentage of the viruses that were being sequenced from various locations in this country were in the single digits, low single digit numbers. But enough that it gave us a warning what was coming. Well, this week, the CDC is reporting twenty four hundred cases in forty six states, of B117 infection. And when we look at what is happening in some selected areas, particularly places like Florida, California and Georgia, we're beginning to see major increases in those numbers. 17 percent of the cases in California, 20 percent of the cases in Georgia and 30 percent in Florida are now B117. Across the country, we are seeing increasing numbers there, but again, we are in some ways flying blind because of the lack of comprehensive testing. At this point, if you look at the case trends, as we're seeing, and you may recall, I talked about it when it was at one or two percent, and I said that the case numbers were doubling every seven to 10 days. And that when you doubled two to four and four to eight, eight to 16, those were lower numbers. But when you started doubling bigger numbers, they really got big fast. Right now, the data supports that we're doubling the B117 infections in a number of locations every seven to 10 days. And when you talk about positivity rates now in

Florida of 30 percent, California 17, Georgia 20, we're starting to double some real numbers. And in a study that we've done and also the group at Scripps has looked at this, we have seen that if you take the countries in Europe and look at when did they have their surge really take off would B117, in each of those countries, it was when that number crossed about 50 percent of all the viruses were B117. We will be there in the next two and a half, three weeks at the most. I fully expect we're going to see the same surges that we have seen in the European countries and continue. And let me just again remind people I know it sounds somewhat repetitive, but I think it's really important to understand what we're talking about here. First, there is a preprint that was published over the weekend in this country from what I think is by far the single most important group looking at the genetic epidemiology of sars-cov-2 and at B117. It includes a number of organizations, both private and public, academic, that are closely following this nationwide. That one of the two senior authors on this is Kristian Andersen at Scripps, who I believe is one of the brightest minds in the business today in this very regard of what's happening. And let me just read the summary of this paper for you. This is the collective statement summarizing the work in this paper from what I think is, again, the best and brightest minds in the business in this country. They state, "The highly transmissible B117 variant of sars-cov-2, first identified in the United Kingdom, has gained a foothold across the world. Using S gene target failure and sars-cov-2 genomic sequencing, we investigated the prevalence and dynamics of this variant in the United States, tracking it back to its early emergence. We found that while the fraction of B117 varied by state, the variant increased in a logistic rate with roughly weekly doubling rate and an increased transmission of 40 to 50 percent. We revealed several independent introductions of B117 into the US as early as late November 2020, with community transmission spreading it to most states within months. We show that the US is on a similar trajectory as other countries where B117 became dominant, requiring immediate and decisive action to minimize covid-19 morbidity and mortality." That's what they said. Let me read that last sentence again. "We show that the US is on a similar trajectory as to other countries where B117 became dominant, requiring immediate and decisive action to minimize covid-19 morbidity mortality." That's pretty straightforward. So, ladies and gentlemen, please understand that we do have this surge coming. What we don't understand yet is just what the full impact will be, but when you see the increased transmission of 40 to 50 percent, what you have to ask yourself, well what will that do here? Well, let me just quickly and briefly share with you what it's done around the world. Remember, the United Kingdom has been in a

lockdown for two months, two months. Not two weeks, two months, a real lockdown. The seven day average of new cases when they hit their peak in January, January 9th, at fifty nine thousand six hundred and sixty. Today, they're finally back down to about eight thousand cases. But that has meant that they've had to be in total lockdown. This past week, Boris Johnson announced the UK's road map out of the lockdown. On March 8th, all children will finally resume school, which they hadn't been in since before Christmas. People can now meet one another outside for more than just exercise. Care home residents can receive one regular visitor. On March twenty ninth, outdoor gatherings allowed of up to six people, outdoor sports will now be allowed. On April 12th, they're reopening all non-essential retail hair and nail salons, gyms and pools. On May 17th, still more than two months away, indoor venues such as pubs, restaurants, hotels and B&Bs, cinemas, museums will reopen. And finally, on June 21st, they're anticipating all legal limits removed. And the last sector, such as nightclubs, will reopen.

Denmark, 60 percent of the cases in Denmark right now are B117. Overall cases are slowly increasing there as they're in total lockdown as they have been since December. They're only now looking at from their peak in December 20th to this past week, considering that some shops will now be allowed to reopen. Outdoor activities can resume with an upper limit of twenty five people and some schools in parts of the country will reopen at 50 percent capacity. Students are asked to be tested twice a week. The Czech Republic. Cases increasing there, pushing the health care system to the brink, with a record number of patients in serious condition. The Czech Republic is now entering a three week lockdown, which is being considered their strictest lockdown yet. Everything's gone, closing non-essential businesses, schools, not allowing travel to other counties unless it's essential. The surge is being attributed to B117. Germany. I can just go through a country by country and give these to you. Norway, Finland, Jordan. We are seeing all of these countries really under the impact of this B117, which is coming to us now. And what are we doing right now? We're reopening so fast, it makes your head spin. Just this week, the governor of Texas basically took off all restrictions. We're seeing that around the country, you know, you've heard me use this term before, you know, we're really good at pumping the brakes after we wrapped the car around the tree. I don't think we care about pumping the brakes even after we hit the tree anymore. And I only see very limited leadership right now coming forward from either the public or the private side to address this issue. I give Rochelle Walensky at CDC great credit for the last week, she has telegraphed this loud and clear. And they should because CDC gets it. They did their own modeling done in January, well done, is

showing exactly what's happening here in March right now. So I only want to share this because at some point we're going to have to pivot and pivot fast. And I don't know what it's going to take. Do we have to finally have our ICUs overflowing with patients? Are we going to have to somehow hit the old numbers again before we basically say, "OK, maybe we're going to have to turn the tide here?" How many governors have promised to have schools fully open again in the next two to four weeks? How are they going to unring their bell? Let me just say a couple more words about the other variants, we've talked a bit about the B1351, the variant that originated in South Africa and the variant P1, the one that originated in Brazil. Let me just make one editorial comment. I get it about how we shouldn't be using names of countries to describe these. We all knew what we felt when we heard our former president call the virus from Wuhan by a geographic name from China. It didn't feel good. Well, here we are calling them this, OK, because it's so confusing. People can't remember what all these different numbers are. So I just want to acknowledge, I'm uncomfortable. I don't like using geographic names because in fact, it may not even be where the virus first arose and tomorrow it could be the Minneapolis virus. You know, it's not necessarily a good thing. But we've got to get a better way to name these. And I know people are working on that right now. But, so if I slip and call it the variant from South Africa, the variant from Brazil, please note that I am sensitive to this. I'm sorry for all those who feel offended by that. But if you look at the B1351 and P1, these are the two variants that have been demonstrated to have the mutation changes that can actually, in a sense, minimize the protection from either vaccine or from natural infection. And to date, these viruses have not circulated widely around the world outside of their areas in South Africa and in Brazil. But when I say that, I want to be really careful because, again, it's all about surveillance and how much we know. But in the United States, if one looks, I talked earlier about the fact that we had over twenty four hundred virus sequences for B117. To date, we have seen 53 cases of B1351 in the United States, in 16 states. For P1, we've only seen ten countries where this virus has spread to. But more specifically, we've only seen ten cases in five states in this country. So one of the questions is going to be, are these viruses sufficiently fit to compete with the other sars-cov-2 viruses to kind of lay claim as to who is going to infect the people? And I have to say it wouldn't bother me a bit if these didn't make it, because this is, I think, the still biggest concern that we have. We're going to need to follow these carefully. I just want to make one comment about the B1526. Here we go, domestically, New York variant. Or the B1429 or 1427, the California variant. I think these are both variants of interest, not of concern. I don't think we have enough

data yet to say that they really have unique characteristics that could make them a much more serious public health threat. But I also want to be clear, we don't have the data they're not either. The B1526 in New York does have the 1E48K mutation that we're concerned about as it interferes with both vaccine and natural infection protection. So at this point, stay tuned. We may have more information for you soon about this. The final thing I just want to say about the issue of variants is we have approached our vaccine delivery to the low and middle income countries through COVAX, largely, the WHO supported activity as almost humanitarian aid. And oh, my God, we surely have to consider that it's true. It should be humanitarian aid. But I want to also point out that it is the most strategic thing we can do right now, because if we vaccinate much of the high and middle income country populations and not a large part of the world, there will be lots of infections, lots of variants developing with those infections. Those could be the very variants to spin off and hit us in our high income country and cause compromise with our vaccines. So I have an article coming out in Foreign Affairs here shortly where I try to lay out, along with my co-author Mark Olshaker, the very reasons why we have to see this as an international priority to vaccinate the world. Variants have fundamentally changed the game. People ask me "What inning are we in, Mike?" Remember all these months I've been talking about innings. I no longer say we're in the bottom of the third or top of the fourth. I say we're in the bottom of the first quarter. And they say, what? It's a whole new ball game. We're not playing baseball anymore, I think it's football.

Chris Dall: [00:38:28] This takes us to chapter three, I Can't Do This. We're seeing reasons to be hopeful about the pandemic as more people get vaccinated, but we're also being asked to adhere to covid-19 restrictions for another few months and many people are ready to be done. So, Mike, what's your message for those who feel like they just can't do this anymore?

Michael Osterholm: [00:38:49] We can. We can do this. We can do this. Of any of the skill sets I bring to this job and some would argue there are not many, one, I think that I learned not by intentionally pursuing an educational pathway, but rather a moment in life. For some reason, as a younger boy, I've always had a fascination with water and swimming. I've loved to get somewhere in a big body of water and look at a point potentially miles away, swim to it and back. And there's nothing that I have found more exhilarating than being in the middle of a northern lake in Minnesota with the loons nearby and half a mile from either shore, just just sitting there for a minute in that water

and looking. But in addition to that, I have been a distance swimmer, most notably an English Channel swimmer, where to do the English Channel, you know, a thirty eight mile swim in fifty four/fifty five degree water, you have to train a lot. And when you do that, 14/15 hour swims, that can be a challenge. Some days I often wondered why I did it, particularly when my shoulders were about ready to drop off. But what I really remember on those swims were when I had a 12 hour swim, it was a rough day, I felt rough in the water in that first hour. And I get to the second hour and I'm in pain, agony. My shoulders are killing me and my back hurts. And I want to just quit. I'm done. I got 10 hours to go. And I'll never forget those moments where you just get it in your head. Wait a minute, don't worry about doing 12 hours. Do 10 more minutes. And then do 15 minutes. And then the endorphins kick in even more. And pretty soon you feel like you're swimming the speed of lightning. And you get tired again, you get you hurt a lot again and you go through that process. But there is nothing like the feeling of getting out of that water after that 12 hours swim and knowing you did it, you did it. And in some ways, I think that's the life lessons that prepared me for this pandemic. I'm in this for the long haul, even in the most painful moments, even in those situations where I'm freezing, I can't stand this fifty four degree water, just keep going because there is land ahead. And I just want to tell everyone right now I am feeling the mental health challenges that you all are feeling. All of us are. It's horrible, it's painful, it's lonely, it's defeating some days is scary, particularly if you don't know where your next meal is going to come from. Or you have thoughts of can you continue doing this every day and you may even consider harming yourself just because you can't do it anymore. All I can say is what I learned is just keep putting one arm in front of the other, just keep putting one arm in front of the other, just keep putting one arm in front of the other. And we're going to get through this. We are going to get through this. And I do believe if we get through this next surge, that the vaccines will be there. And if we can minimize these variants that might compromise the vaccines, we're going to be home pretty soon, we are going to do this. So I guess I just want to share with everyone, first of all, if you're feeling horrible, if you're feeling lonely. If you're feeling like you can't do it anymore, welcome to the club. We should all go out to our front porches and sing an anthem of the loneliness and smile at the same time. But it's true. So I just want to leave everyone here today with the understanding that you're not alone. We're all in this together. And I do see real light at the end of the tunnel after this next surge. So don't let this surge get you. You know, this is not necessarily a helpful analogy, but I've heard it used so many times. You know, we are, in a sense, in a war with this virus. No one wants to be the

last soldier killed in a war. Well, this virus is going to go on for a while, it's going to particularly hit our low and middle income countries hard for some time to come. But right now, you don't want to be the last person in your family, in your neighborhood, in your workplace, in your social group to get sick with this virus. So hold out, hold out through this surge, don't give into all the things we're doing to open up right now. Don't give into the fact it's OK because some administrative authority said the risk isn't there anymore. It's not true. But know that you don't have to do this forever and ever and ever. That, to me is the message. So I hope that this makes sense, that we can get through this, and you just got to hold on. Hold on right now and just keep putting one arm in front of the other in front of the other.

Chris Dall: [00:44:40] Finally, that brings us to chapter four, Winnable Moments. What do you mean by that?

Michael Osterholm: [00:44:47] We have to start envisioning the new world of covid-19. I covered this last time in the podcast where I indicated we have to start coming to grips with what our world will look like and we need people now to start planning that. And the CDC this week is going to put out a document that will start to talk about what can be done safely. Now, I am at odds with some of my colleagues and I may not be right on this, but, you know, the idea that we're going to wear masks into 2022, and we're going to stay away from our families when the most at risk people have been vaccinated into whenever, particularly for kids, if kids don't get vaccinated until next year. Are we really going to do that? I think the answer is no. What we have to do is create those winnable moments. Where we can, in fact, get people together and life is not risk free, it's not. As we're going to talk about in a moment about masking, I hear people say, "Well, if you're vaccinated, be sure to wear your mask." I want to talk about, you know, proportionally the protection from the vaccine is about ninety nine percent of the protection you get with mask and vaccine. And yet we're saying you can't do without the mask. So I think we need much more realistic views of where we're going to go with this. We have to be real. And I don't think sometimes we are really very real. You know, we are really good at making recommendations that I know have to be risk based. I know they have to be ones where we consider what the potential consequences could be and could be a very bad consequence. And it could be a very bad consequence if you get this disease. But to think that grandparents are going to stay away from their grandkids for another year until we may get vaccines for younger kids, I don't think it's going to happen. So if I got

the vaccine in the grandparents, you know, fully vaccinated, others like that, what are the scenarios and how can we actually get together? And I think we have to start planning that now so we give people permission. And the winnable moments are going to be when grandparents hug their grandkids for the first time in a year. It's where moms and dads are able to get together with extended families. And I'm not talking about taking shortcuts, I'm the one who's been telling you all along, don't put yourself in harm's way. But we need more direction that way with vaccines. I've heard more people say to me, "Why in the hell did I get this vaccine if it means I have to do everything the same way I've been doing it before?" And that's a perfectly legitimate question. So at this point, I want to find winnable moments. I want to find the examples when people get together. I want to be there, like I said last week, when two couples who haven't seen each other together in a year, all of them vaccinated, getting together for dinner that first night and enjoying life like they hadn't in a year. I want to be there when families finally are able to get together, and that to me is the winnable moment. So we need to find those. We need to define them and we need to say under what conditions can they occur? And please do not give people advice, saying, "Well, you may need to wear your mask through 2022 and you will not be able to get together with your kids in any way, shape or form younger kids or grandchildren until they've all been vaccinated." I don't know, I don't think that's the answer. There's somewhere in between. We don't shut down life when flu vaccine doesn't prevent older people from getting the flu and potentially dying. We don't shut down life as such when we see an influenza outbreak in our community. We surely may take some general steps, but we need to start making covid-19 something that we can live with as much as we have to get sick with it and die with it. And so I'm working right now, I want to define the winnable moments. I wanted to find those things that are going to make us, again, believe that tomorrow is going to be a different day.

Chris Dall: [00:49:21] Now to our listener emails. We received an email recently following an episode where we discussed double masking about your position on masks during the pandemic. Danny wrote, "Let me start by saying I'm a big fan of yours. I appreciate you being a voice of calm, reason and science during this pandemic. I wear a mask anytime I'm indoors or near anyone, but I've heard from a friend who is a respiratory therapist that he, as well as many people in the field of aerosol science, don't believe cloth face coverings are effective in reducing the spread of airborne diseases. His claim is that n95 respirators are effective, but anything short of that is worthless.

Your tone concerning cloth face coverings has done a complete 180 between the summer and now. What evidence changed your mind?" So, and I'll ask you, Mike, do you think your view of masks has changed that much?

Michael Osterholm: [00:50:08] First of all, I want to thank Danny for that very thoughtful question, that was a very, very fair question. My answer to you Chris is no, I haven't changed my view at all. The problem is, is that I have been nuanced on this issue of face cloth coverings and masks dating way back to the very first podcast. I did a special podcast on that last April about this issue, where at that time, face cloth coverings were the protection, or you were against face cloth coverings completely, and it was a political statement. You had a former CDC director sitting at a testimony table in Congress holding his surgical mask, saying this is more effective than a vaccine. Wrong. So what I have said all along is that anything that can help should be used but has to be understood in the context with which how it can help. Seatbelts, for example, with automobile accidents today are just one part of the safety network of that car. It's the collapsible bodies, it's airbags, it's all the different things that come together to make a difference. A cloth face covering is just that. And I actually covered this in a podcast several weeks ago where I looked at the numbers about how they actually perform relative to respirators, etc.. And let me just repeat this, because, again, this is the nuance. I'd rather have you wearing a face cloth covering than nothing in public, but understand the limitations of it. This is a study that was done actually by a group of NIOSH and the additional data was calculated by our own experts here at CIDRAP. But it looked at the outward leakage of a 0.6 to 1 microgram particle, that aerosol we talk about. And it also looked at the inward leakage and it evaluated n95s, procedure masks or surgical masks, three layer cloth face coverings and a one layer neck gaiter. And if you looked at the inward leakage of that, you saw that the n95 respirator basically had less than one percent leakage, the surgical mask had 40 percent, the three layer cloth face covering had seventy seven percent and the gator had fifty nine percent leakage. If you looked at the leakage out, remember trying to keep yourself who might be infected from transmitting to others, the outward leakage was one percent for an n95 respirator, 52 percent for a surgical mask, 61 percent for a three layer cloth face covering and sixty one percent for a gaiter. Now, those were not great numbers if you're looking at time and exposure to a certain level of the virus in the air. I was critical, as you know, several weeks ago when I talked about the CDC study that had come out on double masking because they hadn't even considered time as a dosage issue. And it is all about that. If

you have X amount of virus in the air, if you have something that can reduce that in half, then you can spend virtually twice as much time there to get the same dose if you had nothing. But if you spend more time, three or four more times in there than you would otherwise, you actually get more of an exposure. So I want to be really clear here. If you're going to be in public and you don't all have access to n95 respirators, then wear one of these other face cloth coverings, but please understand, they don't offer anywhere close to the same protection, and that's the nuance I talk about. So do I tell people not to wear a face cloth cover? No, I do. Wear the best you can. I, as you know, have challenged some people over the double face cloth covering or double masking. Why? Because, in fact, in some cases, it compromises the fit. It compromises filtration in the sense that it's so thick you can't breathe through it, and then it causes it to leak on the sides like swim goggles leak. So it just stands to reason if you're going to do a double masking exercise, make sure you don't increase the leakage and your filtration is such that you use it because it's not such a thick filtration that air can't pass through it. So I think this is the challenge we have is nuancing face cloth coverings. We need a whole lot of improvement right now in what's available to the general public for protecting you. And I don't know why we haven't over the course of the last year, made it a national priority, an international priority even, to get much better respiratory protection to the general public with more of an n95-like respirator and make them available. And we should have. So I hope this, Danny, helps you understand it. I would never tell you to go into a bar or a restaurant with a face cloth covering on and expect that you might not come out that night infected. You very well might. I think if you're in there with an n95 respirator on and you don't take it off, then you probably have a better chance of making it through the night not getting infected. So it's all relative, and so I hope that this helps people understand from the standpoint of respirator protection or face cloth covering protection, the big differences. And I will still continue to say use a face cloth covering if that's all you have. But understand the limitations to what that offers you for protection.

Chris Dall: [00:56:02] You coined the term pandemic of kindness early on in this podcast and from the number of submissions we get each week, it's clear that our listeners, our podcast family, continue to heed your call to be kind. This week, we have an act of kindness from a teacher in Massachusetts. Can you share with the audience, Mike?

Michael Osterholm: [00:56:19] Thank you, Chris. I can't put into words what these acts of kindness mean to all of us and how they just continue to grow in importance in all of our lives. So thank you to all of you out there. Keep it up. We are truly taking on the world. As you indicated, this one is from an English teacher in Massachusetts. The teacher's name is Christa. And she writes, "I'm a high school English teacher in a small town in Massachusetts. The beginning of the school year, I'd asked students to write about their experience during the covid-19 pandemic. One student response really blew me away. And when I heard about your pandemic of kindness initiative, I knew I had to submit this on her behalf. The student is an 11th grader who attends a local high school. Here is an excerpt from her response. 'I've been playing violin since I was in third grade and knew immediately that I wanted to play a series of pieces and songs for the residents in my local nursing home to lift their spirits. I set up an outdoor concert on the patio of the nursing home courtyard where the staff opened the windows and gathered the residents socially distanced to watch and listen from inside. Although I could not be physically with them, it filled me with happiness to see the smiles on their faces as I played various classical pieces. It was truly fulfilling and honored to be able to spread the gift of music to those who could use some company and joy during this remote time.'"Christa wrote, "The student's gesture was truly outstanding and beautiful, and as a reminder during this time of the beauty and goodness that is still in the world, I hope you consider this for your pandemic of kindness website. Best, and thank you for the work you do, Christa." Christa, thank you. Please thank your student and on behalf of all of us, this is the very best. This is what this pandemic has also brought out in us, the pandemic of kindness. And this surely was that. Thank you.

Chris Dall: [00:58:29] Your closing thoughts today, Mike?

Michael Osterholm: [00:58:31] Well, this was a tough podcast. They seem to have gotten tougher over some recent weeks as we see what's coming, but it is about a winnable moment. It is about we're going to get through this and we can and the vaccines give us that hope that we must and can have. And we also confront the issue of how do we get through this pandemic. And, you know, we talk about kindness. We talk about being gentle. And one of the other areas that I've shared with this group before, is the concept of class. Something I think it's worth all of us considering. And in the last several weeks, I've kind of gone back to the oldies but goodies to remind us of some of the messages we've shared in the past. And I'm going to share one this week

about class. It was last used in the August sixth podcast entitled No Time to Rest. And as many of you who've been following this podcast know, I had the incredible fortune as a young boy to be adopted, in a sense, by a woman who was the editor of the local newspaper in our town. A Renaissance woman in every way. She had a daughter and I became her adopted son. And to this very day, her spiritual DNA is in every cell in my body. And after spending many, many hundreds of countless hours in conversations on her couch and her writing me many, many different letters and sending them to me, even though we just lived blocks apart, I have come to understand her wisdom in a way that at the time I don't think I ever could have. And so I share with you a commencement address I gave at Des Moines University on May 23rd of 2015, to the Allied Health and Medical School commencement. And it's all about class. And the title of the commencement address was Lessons from Nana. This situation I describe to you is all about class and what Nana taught me about what it means to live life with class. So here it is. "Finally, let me say a few words about class. It's the ability to never forget who you are or what is most important in life. In particular being a physician or a physician's assistant, means you are pretty important. The life and death status of our loved ones may be in your hands. But never forget that class is the status you earn when your achievement allows you to go to the head of the line, and you don't think twice about standing in the back of the line because others were there first. Nana taught me the class comes in many different packages and under many different circumstances. When I asked her once to better describe class to me, she replied, 'You'll know it when you see it.' She was right. An experience several years ago provided me with such an example. I was given an endowed lecture at one of the largest teaching hospitals on the East Coast. The Chief of Medicine at this prestigious institution is an internationally recognized expert in his area of medical specialty and was in charge of the day's activities. The only way I can describe him is to say he is a brilliant clinician and a wonderful gentleman. As we walked the halls, fellow physicians, nurses, security guards, nurses aides and even station clerks addressed him by his name, Jack, or an affectionate 'doc'. This lack of formality might be viewed by some as a lack of respect for someone of such stature. Nothing could be further from the truth. Jack seemed to know every one of them by their first name and addressed them as if he were talking to a dear friend or neighbor. The deep admiration and respect for the chief was obvious. After my lecture in the hospital's auditorium, Jack and I were taking the back roads to get to his office. It seemed like an endless maze of hallways. Suddenly, in a relatively out of the way hallway near the lab, we encountered an older

gentleman who appeared lost and distraught. Jack asked him if he could help. The older gentleman seemed almost surprised someone in a white doctor's coat would ask. He blurted out in a painful acknowledgement that his granddaughter had just been admitted to the pediatric intensive care unit and he was trying to get there. He was desperately lost. Jack looked at me and his eyes told me just to follow him. He asked the grandfather if he minded taking some stairs to save time. He replied, 'Anything to get to my granddaughter.' After more hallway's and two flights of stairs, we were in front of the intensive care unit, Jack put his hand out to the man and said, 'Please know the staff of this unit are remarkable. Your granddaughter's getting the best care possible.' The grandfather got huge tears in his eyes, grabbed Jack's outreached hand with both of his and held it for a moment. I'll never forget that silent but heartfelt gratitude. Obviously, the grandfather had no way of knowing that the physicians whose hand he held was a prestigious and powerful individual in his field of medicine. But then, that was not the Jack I saw standing there either. As we walked away, making another attempt to get to his office and continuing our previous discussion, I realized again that Nana was right. I would know class when I saw it and I was in the presence of real class." Today, kindness, forgiveness and class- that's what we got to remember is going to help get us through this. That'll help us with our loneliness, that'll help us with our beliefs that this will never end. But it will. It will. So I just want to thank you again for spending your time with us. The CIDRAP family can never adequately express our appreciation to all of you for being part of this and for sharing all you do with us. Thank you. We appreciate your class. So be safe, be well, know that the next few weeks are going to get tougher and tougher in terms of what's happening, but what we are also doing to make sure we're safe is the message we're going to focus on. And please don't be fooled by the fact that the numbers that we see right now for cases, deaths and hospitalizations, while they're good news, they don't give you permission to lose your battle now. You have come far too far to lose your battle. Now stay with it and thank you. Be safe. Be kind. Thank you.

Chris Dall: [01:05:38] Thanks for listening to this week's episode of the Osterholm Update. If you're enjoying the podcast, please subscribe on your podcast platform of choice and write a 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 are our researchers, and Randy and Eric Olson are Dr. Osterholm's story consultants.