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CHRIS DALL: 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 for 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. Hi everyone, before we get into today's episode, I want to make an exciting announcement. Next week's episode of the podcast will be recorded live and streamed to Youtube on Tuesday, August 11th at 7 P.M Central/8 P.M. Eastern. Mike will be answering your questions live from twitter using the hashtag #OsterholmUpdateLive.
1:00
A link to register is in today's episode description. So now, onto today's episode. It's August 6th and nearly 9 months after the first SARS-CoV-2 infection was confirmed. The country is at a crossroads. COVID-19 cases are continuing to surge in the South and the West. New hotspots are emerging in the Midwest and again in the Northeastern states, and the country's ability to test people for the infection and trace contacts of those with COVID-19 simply cannot keep up with the number of people who are getting infected. The coronavirus wildfire shows no sign of burning out, and with the school year upon us it could soon get worse. So where do we go at this point? That's what we're discussing on today's episode of the Osterholm Update. We'll also look at the international situation for adequate safety review of vaccines, dive into the thorny issue of how to communicate with friends and loved ones who don't take the coronavirus seriously. As always, we'll start with Dr. Osterholm's dedication. Mike, who are you dedicating this episode to?
DR. OSTERHOLM: Well, thank you Chris. It's good to be with you again. Thank you to the audience.
2:00
Again, we appreciate you spending the time with us that you do, and the feedback that you give us, and actually my dedication this week really comes from that feedback. I received a lot of it after last week's discussion of school openings and the issues confronting us there, as well as just some of the, you might say, ongoing conversations concerning the country around this issue. I had somewhat of a difficult time trying to figure out how to articulate this dedication, but I think you'll know it if you are one of those who feel it, and that is I dedicate this podcast to all of you who are afraid. All of you who are concerned about your families, your kids, your job, you're a teacher, or you're in a place where you're at increased risk potentially of being exposed to this virus, and for many of you it is a difficult situation because you feel as though maybe you shouldn't feel this way or that somehow the system isn't hearing you,
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and you are in a very, very normal real place as a human being confronting this situation so I just want to dedicate this to you. Now, what we have to do is use that energy, that concern in the most positive way we can to help us all get through together. Being afraid doesn't mean we're frozen. Being afraid doesn't mean we have to be angry. Being afraid doesn't mean that we can't make a difference, and so today for all of you who have real concerns, who are losing

sleep over what's going to happen over the next coming week's, just number one, know you're normal. You're very normal. I get it. I feel it, but at the same time, we're going to do whatever we can with that to make a difference and to be positive. So this dedication is to you.
CHRIS DALL: Mike, in a piece you co-wrote this week in the Guardian,
4:00
you say that U.S. morbidity and mortality in the coming months will largely depend on how much fuel the COVID-19 wildfire has access to, and that in the absence of a national plan, governors in hard hit states really have a decision to make. What would your advice be? Well, we have to do two things here. Simultaneously as we're driving this vehicle called our lives, our communities, we have to understand that we're looking in both the front windshield and the rearview mirror, and we should be looking in both at the same time. What I worry about sometimes is we spend too much time looking in the rearview mirror, and not enough to understand that there are going to be roadblocks, potholes, large animals crossing the road in front of us, and we've got to be prepared for those. So what I'm talking about here is that we're in the middle of this summer time surge issue that's occurred, you know we've just peaked out at on average 64,000-68,000 cases per day. People are now feeling some degree of, you might say,
5:00
"well, we made it," because we are now seeing this today 57,450 cases down almost 7,00 cases. I want to be really clear about one thing though, as you know, that hardly represents all the cases, but more importantly it doesn't even represent all confirmed cases, as the state of California has just announced that they've had some problems with their software that over the past few days they've been missing a number of cases and we'll have to wait to see how that's corrected, so that 57,000 number that I just mentioned to you is going to go up. So that's not a big drop. Why is this happening? Yes, we're seeing decreasing case numbers in some states, but where we're seeing that we're seeing an offset of increasing numbers in other states. It's very interesting, if you look at the 51 states, including the District of Columbia,
6:00
you'll see that now there are 12 of those states and the District where you're seeing an increase in cases over the last 14 days, 29 where it's just level right now, meaning that we'll come up and it's kind of static, and another 10 where it's been dropping, so when you look at that, it's almost an equilibrium kind of situation. So if I'm going through my front windshield right now, as opposed to just the rearview saying, "boy look at the case numbers are coming down, we've got this thing," remember we've been there before. We were there in March and April, and we took some comfort in saying, "wow, by May, case numbers are coming down, we went from 32,000 to 28,000 to 24,000 then we got to 22,000 cases reported today," and that's when pandemic fatigue, Memorial Day, the protests, everything all kind of came together and we gave up, and we basically let loose and we saw what happened as a result of that.
7:00
That was that rapid build up to get to that 65,000 ad 67,000 cases per day situation. So where do we go from here? And you know I don't have a crystal ball, I don't do modeling well as you know if you've been listening to this podcast for a while, but I'm giving you my best professional judgment based in part on my head and my gut and 45 years in the business. I think what's

going to happen is we're going to see over the course of the next few weeks this kind of give and take with case numbers, with some states showing a decreasing amount of cases tied to having had house on fire kind of situations and people still feeling some residual, where places like Florida where so many hospitals still have full ICUs, etc. and you're going to see these cases go up in places like Minnesota, unfortunately, where we've just gone through our highest number of cases reported for a 7 day period since the beginning of the pandemic.
8:00
I worry that we're beginning to look a little bit like what it looked in the Southern states in late May, but I don't think we're going to see the big, big increase until about a month from now. Then I think we're going to see a situation where school openings, particularly in secondary schools, I don't think that's going to be a huge issue in grade schools, there could be some activity, but I think secondary schools and colleges and universities, we're going to see substantial increase there, and we're going to see spillover into the community, and we could take these numbers to a whole new high, and then we enter into, more so the fall heating season, where it's still not cold cold, but it's really one where people are spending much more time indoors, and I think that September and October could be tough, real tough, but that's if we don't do anything about that,
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and you know I'm amongst others looking at these kinds of options we have, barring a lockdown of some kind to get us below the level where we can maintain it. I just have to give a couple examples. I've heard over and over from people, "if you only did it the way this country did it." First it was Sweden, Vietnam, etc. etc. and you can see that every country has had a challenge, but the challenge is that countries like Vietnam, countries like South Korea, I could go through the laundry list, even our colleagues to the north in Canada, you can see there when you're dealing with cases that are less than 1 per 100,000 population per day, dealing with them and testing and tracing and trying to suppress ongoing growth of the virus is much, much easier when you're dealing with that level than you're dealing with ours where the rate may be 9-12 times higher rate right now than we see in these other countries,
10:00
and so we have a choice. Are we going to do what the other countries did and really lockdown? And I'm going to bring that even closer to home. I look at the state of New York, and as you know they went through a horrible period in March, April, but to their credit they really locked that virus down. Go look at their numbers, they have been flat, flat, flat for the last 8-10 weeks. They had days last week with no deaths, and they've done it by basically keeping the foot on the break once they got it down, letting up more and more into everyday life, opening the economy and then if we saw case numbers starting to increase and they have a whole series of measurements that they're looking at carefully everyday, and they put the break down a little bit. To me, that's a model. It doesn't mean they're not going to have problems and they're not going to have a big flare up tomorrow, it doesn't mean it will work the same in every place,
11:00
but what we're trying to get to is that threading the rope through the needle is to get to a vaccine, where we have the fewest number of people left to die. The fewest number of people that have to spend weeks in an intensive care unit. The fewest number of people that have to be

afraid to go to work everyday. That's what we're trying to do. So i think we're at a very important juncture in our whole response to this. Are we just going to basically continue to just do what we do? And I don't want to minimize any number of efforts that are being done, but when I look at for example statements that are being made, and I've said this before, you know, everyone asked, where a mask, this is not an issue, but also be mindful of how much impact that can have, and when I hear, public health leaders say, "if everyone wears masks we can just drive this thing into the ground in weeks,"
12:00
I remind them that on June 18th when the California governor announced the mandate for masking in public settings, which I fully support, cases were 300 a day, by last week they were up to almost 10,000+ cases a day. Now, I don't know that masking didn't cut that in half, maybe it did, maybe it would've been 20,000, but the point of it is we didn't drive it into the ground, and the same thing is true with many of the other things we might talk about in terms of how we do limiting in restaurants and bars, and the question is, well can you do that effectively? Will it really make a difference if you still have your outbreaks, and we have to ask ourselves are we willing to try to get this virus down to less than 1 case per 100,000 per day and then really, really tighten up on testing, because we have enough tests, I believe, in this country,
13:00
to effectively do the kind of testing we need to do if we're shooting at a number of several thousand cases a day versus 65,000 cases a day, and I think this is the challenge we have right now. We need to understand how we're going to respond, and I don't believe we're going to see a national response that will coordinate this, and I think it's going to be left up to every governor, and I worry by not having this discussion, people will say, "We can't have another lockdown. We can't do another lockdown." Well, first of all, let's define what we're talking about. To me that really misses the point of how much damage, how much pain, suffering, and death will we experience? How much economic loss will we have between now and next spring when we get a vaccine, are we going to have to go through? How much pain is going to be extracted if we try to get this under control now, more like other countries have, and then deal with the crisis issues? The question about it is not going to go away, but then deal with it at the much, much lower level where we can open up our schools.
14:00
We can open up more of a public setting. We now have the break there. So I think it's a question of our willingness to consider that, what is our political will? And as I've said before on this podcast, I believe absolutely in that coming from the Oil Fram commercial of many decades ago, "You can pay me now, or you will pay me later," and so I hope that we can have that discussion in a way that doesn't pit us in political realms. Economically, we have to take care of those who are suffering because of the economic implications if you do lock down. Lost wages, small business owners, all these, now is the time for us to take care of them if there was ever a time to do it,
15:00
and so I'm not naive, but I also know what is coming down if we don't respond in a different way. Don't please take cases decreasing in some states right now as "oh we've beat this thing, we've flattened the curve," because we've been there before, and look how fast it came back. We are

human. We will make changes for a short period of time and then we get tired. We have to put in place ways to drive the virus down so we can accommodate some of that pandemic fatigue, and at the same time not see these kinds of runaway situations. So I think the piece in the Guardian is really an attempt to illustrate that point to have that discussion, and you know, I worry that even trying to have this discussion on this podcast is not only safe. I have to tell you, if some of you were to see me you'd probably shake your head.
16:00
This past week I probably, I can't even begin to say how many times I was called a traitor or a coward or something because I wouldn't get partisan on an issue, when I believe right now we need to stay eye on the ball, and that's the science. We're somehow taking away people's livelihoods where I'm more concerned about someone called the virus taking lives, so I think one of the things I hope we can do is have this thoughtful conversation, and we'll talk more about this when we get into communication issues where we're at right now today, but in the meantime we're at a critical point and this is not a time to rest. This is a time where we really now understand just how much bigger this could get, and I worry that in a couple of months we're going to be in a place where going to look back and say, "boy, remember when it was only 63,000 cases a day, that's something. That was the good ole days." That would be a tragedy all beyond anything I could describe.
17:00
CHRIS DALL: I want to take a look at the situation in the rest of the world, Mike. Let's start with Australia. Australia's Victoria state and the city of Melbourne have opted to go full bore on a strict lockdown to get their spiraling coronavirus outbreak under control. What do you make of this strategy?
DR. OSTERHOLM: One of the most important messages I think that we can take away right now from what's happening internationally is no one has a perfect answer. No one, and you know, I find it difficult when I look at, for example, the data on school openings, and we are told if you just did it like this country and this country and this country because they didn't have a problem. Well, the problem was they did have a problem, because there were such low occurrence of cases in the community at that time, and that if you just opened it when the case numbers were increased in the community what happened in the schools was very different,
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and so the first thing to understand is everybody in the world right now, even China, is being challenged by this virus and this leaky bucket virus as I've called it, basically coming back and being there and you have to continue to weed your garden of weeds, you know, everyday new weeds come up. You've got to keep on top of it or else it goes to weeds, and what these countries have done, however, have been able to keep that at a lower level to begin with can respond. So, you know, at the issue in Victoria, where Melbourne is at, you know, I spent a fair amount of time there just last year. I know what an incredible group of researchers and public health people they have there, and they're challenged, but you know what? They're sitting there with 700 cases a day maybe, and I say to myself, "wow, that would be a much easier situation to deal with than, for example, what we're dealing with in this country."
19:00

I look at Vietnam. They're very concerned now, they've had it spread to 2 more providences. The original epicenter in Danang appears to be more under control, but suddenly they had a series of death after touting for months "no deaths in Vietnam," and it just reminds us what we have to deal with is an everyday presence of this, but if we have it at those lower levels, we can, I believe, do it like New York's doing it, so I think at an international level, don't be surprised. You know, all these countries that appeared to have had it under control do, in a sense, still have it under control, it's just they're challenged, day in and day out. That's very different than the kind of huge coronavirus forest fire that is consuming countries right here in the Americas, you look at Brazil, you look at other countries here, South Africa, India right now is seeing major activity.
20:00
That's to be expected and they, like the United States don't have it under control, and they're paying a price, so I think the international data for me just confirms what I see here in the United States that we end up having to deal with this in a different way than we have in the past, and every country in the world is a lesson for us to learn from. The last thing I just want to say is that this is where I always get concerned because it's very difficult to talk about all these numbers, and not just get your glazed over eye look. You know, we are now talking about every 4-5 days adding another million cases on globally. These are confirmed cases we know of. Surely there are many, many more unconfirmed infections that don't get detected, but there was a time, going to the first million cases, it took months.
21:00
That seems like, wow, I can't believe we got here, and I think we're at the point now of just understanding the dynamics and the dimensions of this pandemic, where you know, a million cases here, a million cases there, pretty soon you've got real cases. Well, every one of those individuals was a person. It's a tragedy. So, I just also don't want us to get numb to all of these big numbers. I would like to see us stay as sensitive and as concerned as when we were dealing with 500 cases as we're now dealing with a million new cases every couple of days. I worry because otherwise it gets too easy just to dismiss what's going on, well you know, it's another million cases what can we do about that, that's a real challenge.
CHRIS DALL: Last week we talked about the phase 3 trials for the Moderna vaccine and what that will look like, and this week I want to ask about safety issues. Everyone is obviously hopeful that one or more of the 6 vaccine candidates with phase 3 trials will be effective, and that we could possibly have a vaccine approved by early next year. There are concerns in moving so quickly that safety issues will be overlooked.
22:00
So, Mike, what would you say to those who are concerned about safety?
DR. OSTERHOLM: Everyone should be concerned about safety, and that is not at all inconsistent with having an effective vaccine soon. The challenge is how do we merge those two together to have the data to assure the safety information is there and at the same time show that a vaccine works. Let's just take a step back. There are actually 23 vaccines right now that are in clinical trials around the world. You may have heard last week that the Russians announced they would have a vaccine soon that they would be providing to their population. That one I have some concerns about in terms of how much safety and effectiveness data they

have, but the way that we traditionally bring a vaccine onto the market, well, number 1, it usually takes years. Number 2 is it goes through a series of studies where each one builds on the previous one,
23:00
and what we do is we go through three different phases with often, then, a post-marketing phase, so really kind of 4 phases to get a product to market and to use. In phase 1, it really is just about safety, totally looking at can we give this to animals, can we give this vaccine to a very few number of humans who are volunteers, to look and see if we inject into something, in this case this vaccine, that you basically don't develop anaphylactic shock, that you don't have some other serious problem occur in your health picture. That's pretty straight forward information, particularly when you're dealing with the animal model issue. Then you move on to phase 2, which is a combination of safety, dosing, and a preliminary effectiveness kind of measurement, and what we mean by that is now we want more data on safety, we're now including more humans into this.
24:00
Some of these trials included, like Moderna for example, 45 volunteers who were 18-55 years of age, they got 3 different doses of the vaccine to see how it would work and then look at the reactions to that, and then from an effectiveness standpoint, what they were really looking at was the antibody development and what did the immune response look like. Was it consistent with what you would expect to see if someone were to be protected against this virus? And based on that, and again, phase 1 and 2 should be really straightforward, and what I mean by that is just that it should be very transparent, did you have reactions or not and what antibody levels did you develop? Then you move into phase 3. Phase 3 gets much more complicated because now what we're talking about is kind of a definitive safety level review, and I'll come back to that, and the effectiveness or efficacy of this, in this case a vaccine.
25:00
The Moderna vaccine enrolled 30,000 people in this phase 3 trial, of which 15,000 got the vaccine, 15,000 got a placebo. Neither the recipients or the vaccine people will see which one they got, and now they're in the community and overtime, as more and more people get infected we'll be able to look at the issue of how well did the vaccine work. Definitive safety means, not that there is absolutely no safety concerns about this vaccine, but the administration of this vaccine and the dose that was used, there were no major challenges in terms of adverse events that required hospitalization or something that would be considered of real significance. Now, we can't, with 15,000 people having gotten the vaccine say absolutely there couldn't be something they don't see in 1 per 100,000 or 1 per 200,000, but it gives you a good sense of it is quite safe to give this vaccine.
26:00
This is where the efficacy studies come in but when we look at those who go the vaccine, were they protected at a significantly higher rate than those who got the placebo? And what will happen then, is this will go to studies where now we're going to be testing many, many more doses of vaccine by just using it as a regular vaccine in our community, but we want to know, are there reactions? Are there situations where something might have happened where it could be associated with the vaccine and an immune disorder occurs later, and also how does it work

now as a vaccine in various groups? Embedded within these phase 3 trials often are subgroups, where they'll be older individuals, people who might have a risk factor such as a body mass index increased, etc. and more data will be collected on that.
27:00
So what's going to happen is these studies, through phase 3 which are being done now for all of these vaccines will, in fact, be evaluated, I think sometime this fall if we continue to see sufficient transmission in our communities. It's a sad commentary that we need to have higher levels of virus movement in the community to be able to effectively test these vaccines, but the fact of the matter is that's the case, and we'll know, probably this fall, early winter, whether or not these vaccines were effective, and within the context of who got vaccinated, they were safe. What I worry about is if there were a decision made to bring forward one of these vaccines under emergency use authorization where we don't know all of the data, but somebody in the government has decided, okay, we're going to put it out.
28:00
That's what people have talked about, this October surprise is getting a lot of attention. I worry a bit about this discussion because I think if we talk about it enough we can convince anybody in the world these vaccines are going to be safe. So I personally wrestle with how to talk about this, because safety is very important to me. It's important to my kids and grandkids, and I'm going to make damn certain that I won't ask anybody to take a vaccine that I didn't feel had that highest level of safety built into the evaluation, but at the same time I want to also say that safety is important. So we're kind of caught in a Catch-22 here between making people more concerned about the safety versus, you know, letting on like it doesn't matter, and I can assure you that I'm 100% confident that, a number of my colleagues and I surely commit to this, if we felt that there was any reason to think that a vaccine wasn't safe we would speak up, even if the U.S. government, the FDA, decided to approve it,
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which I'm going to believe they won't and there won't be any undo influence on whether a vaccine is brought forward, but if there were, I am certain there would be a large body of established scientists, with great credibility that would say no, and the public would know that. At the same time, we then, as scientists, need to also say yes when it becomes that point of where we have sufficient data, and then we need to help people understand the importance of getting this vaccine which, as you know, is our only real, real way out with this pandemic.
CHRIS DALL: We have a great email question this week from one of our listeners on COVID-19 and communication, and I know this is an important issue to you Mike, as you have from the very first podcast, stressed how important it is to communicate the facts about this virus. So, Michael writes,
30:00
"I was wondering what your experience has been like and how to best deal with people, especially loved ones and friends who think this pandemic is no big deal, aren't following guidelines, and have fallen victim to misinformation such as the idea that the virus was made in a lab?" So, Mike, how do you communicate with someone, who, for whatever their reason is, doesn't take this virus seriously, or believes things that you know aren't true?

DR. OSTERHOLM: This is really a major challenge as we're trying to navigate the virus and our own lives and watching what it does to those who we love, who we work with, who we know, who we care about, and how they respond to this virus. We all recognize this is obviously part of an entire societal issue right now about what we believe from partisan politics side, what we believe from our economic position that we're in, and we just have to acknowledge that this is really tough.
31:00
I've seen families that have been close as a group of siblings for 20, 30, 40 years where this as become an extremely divisive issue where one group of sibs can't understand why the other group of sibs, or at least one of the sibs, could ever think like that, and you know, that tells you it's something much deeper than just about facts, about what people believe or don't believe, and the first thing you have to do is acknowledge that this is real, that the worst thing you can do right now is throw gasoline in the fire, and what I mean by that is you don't back down to say "okay, you're right," but at the same time, you don't automatically poke that individual in the eye and say, "I'm right." You know, I actually tried to live by some of the things I've been sharing with you, and one of the things I've done over the course of the recent months is when I get these really horrible emails,
32:00
you know, when they don't threaten to kill me it's a doable one, and I write back, and I'll kind of be laid back a little bit, and say, "okay, help me understand why you feel this way, and you know, what is it that you think could be done differently and why?" And I've actually had a number of these that, and you could say I'm crazy for doing it, and maybe you're on the podcast right now and think I'm crazy if you're one of those people that received such an email, but we started an exchange, in some cases brief exchanges, but we came to very different positions. I had several people this past week, for example who read the article in the Guardian that we just talked about and the idea that we need to look at what else we can do and I talked about the New York state model and how it had worked in this Guardian op-ed I did,
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and I got one email back from an individual that said, you know, I was reading this thing, it was a great thing, and then we got to New York, and I read it and I thought—I threw it away—I couldn't do this anymore, why did you say that? Look how they had done. Well, that's an interesting thing to think, so I responded back to him, and it turned out, he had lost a grandparent in a nursing home outbreak there, which he attributed to the New York state response because they had opened up nursing homes to people to get them out of the hospital, and when we had an ongoing continued conversation about this, email wise, I shared that was a real problem, you know, we can all recognize the challenges that happen with long term care, it was in many states, you know, New York was one of them, but since that time, look what they've done. Look what they've learned, look how they've applied that, and we ended up having several more emails with each other that turned out to be very positive and by the time I got done with the last one,
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I think it was my last one now, he actually was very complimentary and said, "this was very helpful for me to work through this, because I had this pent up anger about what happened,"

and you know, I don't think that can happen with everybody, and I surely wouldn't tell you that it's, you know, going to be perfect, but I think we need now more than every to have patience, and to be able to pull back, and to try to engage in a conversation, and if that doesn't work it doesn't work, but I think it may work more often than you know. You know, go back to the May 6th Viewpoint that Peter Sandman and Jody Lanard did on communication during a time like this and the whole crisis communication issue, and I think it's how we communicate whether it's not over reassuring, you know, it's not basically being in their face, but validating emotions and moving that way.
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So I don't give up on moving the needle in terms of trying to have these conversations, having been in the middle of so many of them recently. As I've told you, I can't tell you, I was just actually on a podcast earlier today, a meeting webinar, in which a question was asked by someone who asked me about a quote that I supposedly made on public radio this week and it never happened. I never said that, never, but that person heard it that way, and by just being able to take the time to explain it, it really made a difference, and so I urge all of you to take the time, the patience, I'm not saying it's going to be solving everything, but it's right now the worry is that the only other option is just to see this degenerate into a he said she said, and more anger, more belief that the other side is out to get the other side and not being responsible,
36:00
so I know it's not necessarily a satisfactory answer. I surely don't have any magic pills to give you to take that makes this all fine. The fact that you're even asking this question like you did says to me that you're one of those people that can engage others and bring them along, and hopefully that by itself is one more step forward in terms of what we're trying to do.
CHRIS DALL: National Institue of Allergy and Infectious Diseases' Director Dr. Anthony Fauci, this week said in an interview that he thought it might be a good idea for teachers to wear face shields if they return to the classroom this year. So, Mike, we've talked a lot about masks on the podcast but not about face shields. What do you think of face shields and of Dr. Fauci's suggestion?
DR. OSTERHOLM: Well, face shields surely can play a role, particularly if it's a setting where you have someone's mouth literally right in front of you,
37:00
and they are either going to cough or basically inject droplets right at your eyes and in your nose, and that is something that happens in the clinical setting. That's real. Dentists are a good example where the mouth, you know, face to mouth, is real, but in terms of the everyday setting I think it is not necessary or even that helpful to do that. I know there are others who would say differently, but even the CDC does not recommend the use of face shields for normal everyday activities or even a substitute for masking. The route of infection even for a face shield is that the air comes up underneath the shield, into your nose, into your mouth as you breathe in and out, and we must never, never, never let plastic face shields become an alternative for masks.
38:00
It's that simple. If you look at there have been a number of review articles that have come out basically saying the same thing, that face shields for infection control in that setting do not provide any protection from aerosols or smaller particles that are floating in the air. There was a

recent outbreak in a hotel in Switzerland where a number of the staff people wore only face shields, others wore masks, and the face shield people were the ones that all got infected, not the masks. That should tell you something right there. It's not a controlled trial, but it's just the understanding that from a physical standpoint, getting those aerosols up into your face is what's important. Now there are people who believe in aerosols and those that don't, think that they're very rare events that aerosols are expelled out with exhalation or inhaled in, and they're going to say,
39:00
"well, face shields are perfect, because that's not how that happens, I imagine it's kind of getting spitted at me as opposed to something that's kind of wharfing in the room." So I wouldn't agree with the face shield recommendation. I surely would do that if in fact I thought it would make any difference, I think it just adds another layer on, and where I see it coming up more and more is people who don't want to wear a mask because they feel like they can't communicate as well. This is in teachers, a very legitimate concern, I've heard it from people who are trying to do talks, which first of all is a challenge in and of itself to have a crowd in an indoor area where you're giving a talk, saying, "I want to take my mask off because they can't hear as well," but my whole point is if you're indoors giving a talk, that's a problem to begin with, and right now, number two, is you're the one who should have a mask on more so than the audience itself.
40:00
So, I would not recommend face shields at this time as a necessary part of any kind of PPE unless it's in a clinical care setting.
CHRIS DALL: You've mentioned in previous episodes that you've been involved in developing a reusable N95 mask. Mike, can you give us an update on that effort?
DR. OSTERHOLM: Well, we continue to be involved with that. There's been real progress made on the part of the team in California that developed this new material with the electrostatic charge that can be basically rewashed over and over again. We're kind of on a wait mode here to help with a potential roll out of that to look at how this can be manufactured and made available to the public. And I'm again, very impressed by the work that they're doing. We're on 24/7 kind of standby to help however we can, and I can only hope this occurs sooner than later. As everyday we're missing the opportunity to protect people that if they had these, I think would be substantially protected,
41:00
much more so than their use of the current face cloth coverings, and boy I couldn't wait to see that happen.
CHRIS DALL: Any parting thoughts for us this week, Mike?
42:00
DR. OSTERHOLM: Yes, you know, trying to again tie together the science, the emotion of the moment, where are we going, the uncertainty, the concern about the safety of our loved ones. Boy that makes for quite a mix, and you know, I try to understand for my own perspective, what is it that we need right now in the people we want to be our leaders? In the people we want to be our friends? What do we need in the people that we want to trust to give us the information, and I want to share with you today actually something I wrote as part of a commencement address I gave several years ago, and I already referred to that commencement address one

other time in this podcast, and I know that there are new listeners and so I ask all of you for your indulgence for hearing this introduction before, but let me just give the background on how this commencement address came about. As I said, as I noted in previous podcasts, I was really given the gift of a lifetime in a relationship I had as a boy growing up into adulthood. I was the oldest of six kids, and I had to manage both of my parents mental challenges and my father's alcoholism and violence, but one of the really special gifts that, maybe the most important of my child, is the really special relationship I had with the wife of an owner of an Iowa newspaper where my father was a photographer. She was in her mid-40s when I was born, and I kind of became her adopted son, and she in turn, kind of really, for a lack of a better way to describe it, became the mother of my soul,
43:00
and as some of you have heard me say, I believe fully her spiritual DNA is still in every cell of my body and helped shape the values I cherish today. Her family name was Nana, and she was the essence of a renaissance woman in every way, a real inspiration to me, and over the course of 20+ years, she died when I was 27, we shared hundreds and hundreds of hours of soul searching conversations, and ironically she wrote me hundreds of letters and notes that would appear in the mail, even though her house was just 8 blocks away from my house, she would still mail them to me, and so several years ago, I was asked to give this commencement address at Des Moines University Medical School. I'd never discussed this relationship in public before, but I decided I really did owe these graduates more than just another warmed over commencement address so I ventured out and shared some of the lessons learned from Nana,
44:00
and on of the ones that has really stuck with me over the years is the whole concept of class and what does class mean and Nana had a sense of that was remarkable, so let me share with you a moment in my life as it relates to what she shared in terms of understanding class and how all of us today surely can use class in our lives both from ourselves to others as well as others to us. The commencement address: finally, let me say a few words about class. It's the ability to never forget who you are and what is most important. In particular, being a physician or physician assistant, the life and death status of your loved ones may be in your hands,
45:00
but never forget that class is a status you earn when your achievement allows you to go the head of the line. You don't think twice about standing in the back of the line because others were there first. Nana taught me that class comes in many different packages and under many different circumstances. When I asked her once to better describe class to me, she said, "You'll know it when you see it." She was right. An experience several years ago provided me such an example. I was giving a lecture on one of the largest teaching hospitals on the East Coast. The chief of medicine at this 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's a brilliant clinician and a wonderful gentleman. As we walked the halls, fellow physicians, nurses, security guards, nurses aids, and even station clerks addressed him by his name,
46:00
Jack, or an affectionate, "doc." This lack of formality might be viewed for some as a lack of respect. Nothing could be further than 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 a lab, we encountered an older gentleman who appeared lost and distraught. Jack asked him if he could help. The older gentleman seemed almost surprised that someone in a white doctor's coat would ask. He blurted out, in a painful acknowledgment, 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.
47:00
He replied, "anything to get me to my granddaughter." After more hallways 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 that the staff of this unit are remarkable. Your granddaughter is 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 that grandfather had know way of knowing that the physician who's hand he held was a prestigious and powerful individual in his field of medicine, but then, that was not the Jack I saw stand in there either. As we walked away, making another attempt to get to his office and continue 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.
48:00
I hope all of you can feel class in your life, and we all can be like the Jacks of the world. This is a tough time. We need that. We need our science, we need our public health, and we need our reassurances, we need our moments to be afraid, we need our moments of class. That's what I leave you with today, as I do every podcast, urging you to be part of that pandemic of kindness, to care about people, to listen to people, and to act with class. I've always said, when you act with class you never need doubt yourself, and that to me is the message I believe all of us on this podcast absolutely want and need to feel. Have a good, safe week. I look forward to the live podcast next week, although I must say I'm a little bit nervous. I'm sure I'll get some really tough questions—good ones, but tough ones—and thank you so much again for listening and being a part of this.
49:00
We appreciate you very much, and we surely welcome your feedback. Thank you.
CHRIS DALL: 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 at cidrap.umn.edu. The Osterholm Update is produced by Maya Peters, Cory Anderson, and Angela Ulrich.