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. I'm your host for these conversations. We've got a lot to get to in this episode, Mike, from the rush to reopen to vaccines to what's going on in Sweden, but before we get to all that I'd like to start with your opening thoughts. DR. OSTERHOLM: Oh, thank you Chris,

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another busy week, a week with lots of issues, questions, concerns about where are we going with the COVID-19 pandemic, but I'd like to start out as I have in past episodes, and I think this particular dedication which I'd like to make is actually to what I believe will be many of the listeners. Over the course of the past weeks to months, we've all been trying to internalize what this means. At first it was quite abstract, because none of us knew anyone who actually was a COVID-19 case, and then some of us knew people, and some of us knew people who died. Others still may not have known anyone who's a case or who have died but we're all sitting here internalizing "what will this look like when it's all over with?", and I've talked to more people in the past week who are

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admitting to themselves that they do think once a day, twice a day, when they wake up, when they go to bed at night, "When am I going to get it? Am I going to get it? What will it do to me?" And those who have known people who have been seriously ill or have died, it even weighs more on their minds, and you know I think it's really important we all acknowledge that it's okay to feel that way. That it's something that's normal. I know I think about it, and there's times I just want to say, "Dammit get it over with. I don't want it, but just get it over with," and I realized that that's going to continue to happen for many of us for many more months to come, and why that's important is because we're going to have to learn how to live with this. This is the part I was talking about over the last few weeks about while we've unfortunately had to learn how to die with this virus, how the pain and the agony of these illnesses and these deaths, we're gonna have to also

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continue to learn how to live with this thing, and I know the other times when I, in my building I live in, I will be in an elevator wondering who just took the elevator before me. Is this my time? And I think all of you out there who feel this, who know this, who wonder about this, it's okay, and we'll just have to keep hanging together and moving forward, and so today I dedicate it to all of us that are the worried, the ones who think about it, the ones who know that to get to that 60 to 70 percent level of infection or, hopefully, vaccine induced immunity, we're going to know a lot of people. There'll be family, there'll be friends, they'll be colleagues, they'll be neighbors, there'll be people who we don't know but we've

read about, and so today this broadcast is dedicated to us. To us, and hopefully we all can appreciate that

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it's only going to continue to go on, and we need to be there for each other. So with that, that's my dedication.

CHRIS DALL: So despite that worry here in the US we continue to see a rush by some states to reopen and get people working again and get the economy started, but on Capitol Hill today Dr. Anthony Fauci told the Senate committee that if the country reopens too quickly, the consequences could be really serious. Was that the message that politicians and the public need to hear?

DR. OSTERHOLM: Well the message all of us need to hear, just the truth. Just tell the truth. Tell what we know and what we don't know. Straight talk all over again, and I just have to remind everyone that we're in this very difficult position of living in the world of COVID viral gravity. Where in fact the five to fifteen percent, maybe as high as twenty percent in the New York area, of population have already been infected with this virus make up a very small segment of our US population and for that matter of the world, and for us to 5:00

get to that 60 or 70 percent level just to get to hurt immunity, and remember it'll continue to transmit after that, it's just that it will slow down, or to hopefully have a vaccine—hope is not a strategy—we're going to go through a lot between now and then. I worry that when I hear these kinds of statements like made today, that the public will perceive this to mean that if we just get over this last hump, if we just get done with this curve now, we get to summer we'll be okay, and I know it people are probably getting tired of hearing this, but I keep telling everyone we're just in the second inning of a nine inning game, and what we've got to do is understand that we have to develop the kind of plan, that I'll talk more about that today, we need to do that, learning how to live with this virus, what we're going to do. Ithink that Tony's remarks are right on

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mark with regard to his testimony. We will very likely see a potentially substantial increase in cases over the next four to six weeks, and that it will be tied back to this kind of reopening as we call it, and I think it's really important we take a moment to reflect on "What does this mean? What's happening? Where do we go with this information?" Well, at best, right now it appears at least 42 of the 50 states are reopening their previous closures of businesses, measures for physical distancing, and ironically as much as just three to four weeks ago we were all talking about how we would reopen using measures that had been agreed to by Public Health, the idea of at least two weeks decline in new cases, increased capacity in our hospitals, I had to put

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protective equipment for our health care workers testing that would be available for everyone that needed one. Not one of the 42 states, that we know of, have met any of those criteria so that there surely was a change in plans which is okay. That's anyone's prerogative, the local or state leader here, but I think what it does, is it really confuses the public. It's to say "Now, what's

different now?" We all understand our economy is hurting mightily. We know a lot of people that are hurting mightily, and to not appreciate that, and want to address that, is obviously not an option. At the same time, this virus is not an option

right now, and we have to understand that it will continue to spread and transmit for the foreseeable future at least, as we are seeing cases rise in a number of states. I 8:00

think that the governors are making a strategic mistake here by reopening. Not because of reopening, but by doing it without an objective criteria. I've heard from many private citizens over the course of the past week. I've heard from a number of news media sources. You know, "Why are we doing this without some criteria? What does this mean?" Everyone wants to get back and reopened, and I worry that we're setting up a system where people are losing faith in the decision making process, because they feel like it's so arbitrary. They feel like I have to turn on to get a daily press conference to find out what's going to happen with my life today. Is there a roadmap? Is there some way that I can objectively understand how a decision is going to be made? I've raised this question now, and said okay if you don't want to use the criteria for closing and opening as we have previously suggested, what are you going to do going forward? What if we suddenly see a four-fold increase in cases in 9:00

State A? Will that mean we'll go back to a closure? What kind of closure? Why will it be there? And I fear that if we don't come up with more objective criteria that match up with why we're doing what we're doing, what we hope to accomplish with it, and when will we know if we did accomplish that, so that then we can again release or relax what's happening, and at this point I think that we're going to be challenged going forward by the public, or they will continue to lose more and more confidence in what we're doing if we don't come up with more of those of just objective criteria. Now I realize the art of governing isn't always about objective criteria. It's in part about understanding the moment, understanding what the needs of a population are and addressing them, but I think you can do both. I think we can be sensitive to the economic issues. We can be sensitive to "What does this particular decision mean for the public as it relates to the

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economy? What does it mean in terms of disease transmission?" and I think that it's interesting that poll data that are out coming out are beginning to show a rapid erosion of public support for what we're doing in this country around the COVID-19 actions. Just today CNN came out with a poll that now says that 55% of the US public believes that the federal government is doing a poor job preventing the spread of coronavirus in the United States. That's up 8 points from a week ago. Almost up 20 points from four weeks ago, and I think you're going to continue to see that there will be this continued erosion. Now that's to be expected in part. We know that in previous outbreak situations there is a fatigue factor that sets in if you ask people to do something for a certain period of time, after a while they just get tired of it, but what we found is that they get tired of it when they

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in part don't understand why they're doing it, and so I hope that if we've learned nothing from this current experience, it's that we have to have more objective criteria, and particularly, do not

say that you're going to abide by something of having X or Y, and then don't do it. If you want to change X or Y, that's okay. I don't want to feel like we're locked in, but then the public will understand why, and hopefully we'll make a convincing argument why what we're doing in public health makes sense for the economy. So, you know, this is not meant to be some kind of negative reflection on all the governors. I think they're trying to do the very best job they can, they're trying to balance a very, very difficult combination of crises in public health, crises in the economy, and, but I can see the way forward only going to be if we bring more objectivity to this, more of a roadmap, and that's what will keep the public with this, I think.

CHRIS DALL: The US, of course, is 12:00

not the only country talking about reopening. That process has already begun in South Korea in Germany two countries that have been championed for acting quickly, ramping up testing, and getting the pandemic under control, but in the last week we've seen a new outbreak in South Korea, and the reproductive rate of the virus inching upwards in Germany, "what does this tell us about the challenges going forward?"

DR OSTERHOLM: Well I think you could add, actually, to that, that we've seen increased activity in China in the last week, including an outbreak now in Wuhan itself, the first since the major outbreak last January. This just speaks to the virus that we've

been talking about for the last four months. This is a virus that I call a "leaky vessel virus". If there's one little pinhole in a bucket full of virus, it'll leak out and that's the kind of transmission we're going to continue to see, particularly the respiratory transmission. When people conclude that a certain country model, or a certain approach is the way to go, I think you'll find very quickly that, just wait a

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little while, and see what happens. We've seen that in countries like Japan, Singapore, as well as Germany and South Korea, so surely you can bring more control to it as they have done in those countries, but I think even Germany will be an interesting case where it's almost, you're always going to have your foot on the accelerator and on the brake. How do you limit distancing activities between each other? How do you bring those over together? How do you advise the population that if we don't do this, the cases will increase or decrease? Now I have to add one last piece to this, however, that as I've mentioned before, one of the challenges I think we're having going forward, is that despite all of these efforts, we have one wild card in all of this about country control, and that is what the virus itself is going to do. This may sound 14:00

terribly insensitive, and I surely don't mean it to be, but as I have said before, I would actually be much more concerned if over the course the next four to six weeks around the world, we saw the virus activity begin to drop somewhat precipitously, and you'd say, "Well how can you want that? That means more people ill, more people dying". If that's the case, I think you have much more of a reason that this could be an influenza-like pandemic experience, where as we saw in the early waves of all the other influenza pandemics in the last 250 years, sporadic, in some cases marked with sporadic activity, around the world and then have the virus suddenly disappear for anywhere from two to four months, and then come back with a vengeance in a

large way. That would make me nervous that that might be what we're seeing here. Now, again, as we documented in our scenario paper that we published several 15:00

weeks ago in The CIDRAP Viewpoint, there are surely other explanations for how this coronavirus may get from the five to fifteen percent up to the sixty to seventy percent, but the influenza one is what I worry about. So, as countries are trying to control this, first of all, please know there is no perfect model. There is none. There are models that have surely given us hope for a better approach. There are models that have existed in countries that have unique characteristics that make what they do much easier. If you're the 5+ million people living in the two islands of New Zealand, that's a lot easier to control that virus there than it is in a large metropolitan areas of many of our major cities and countries around the world, but the real telltale will be what the virus itself decides to do over the course of the next months, and we're all going to be waiting on that one.

CHRIS DALL: Speaking of different models, Mike, once again we've received a lot of email questions from our listeners, many of whom are interested in the different 16:00

approach that Sweden has taken to fighting the coronavirus. So, Tamara asks, "What are your thoughts on Sweden's decision not to impose a complete lockdown, and is it that their population is healthy enough that they can do this?"

DR. OSTERHOLM: The Sweden situation has been unfortunately mischaracterized by many, as a experience, and it's not that at all. When we look back on what Sweden originally did, they did not do all the social distancing, as has been called by them, I continue to call it physical distancing. They left bars and restaurants opened with some distancing there. Schools remained open, and for the longest period from February into towards the end of March, everyone said "Look at the rates of disease, the rates of deaths in Sweden, Denmark, Norway, and Finland, are all the same," and yet those other three countries are ones that put into place much more stringent

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distancing recommendations much like we'd had in the United States. Well then in March, the four countries diverged. Denmark, Norway, and Finland continued to show a certain increase, much more gradual in number of cases and deaths, and Sweden took off, such that by the end of April, Sweden was very, very different than the other three countries. They now have, as a country of 10,333,000 people, 27,272 cases of COVID infection. That includes 3,313 deaths as of today. Their rate of deaths, 32 per 100,000 even exceeds the United States of 24.7 per 100,000. Over seventy percent of those deaths were in long-term care facilities, for which there now has been a criminal investigation open about the actual transmission in those 18:00

long-term care facilities, and what the implications are. Meanwhile, as you look at the overall rate, as I pointed out, the 32 per 100,000 deaths, that compares to 9 per 100,000 in Denmark, 4 per 100,000 in Norway, and 5 per 100,000 in Finland, substantially below what Sweden had seen. Even if you looked at just general cases their rate of cases per 100,000, their 27,000 I mentioned, is at 263 per 100,000, whereas if you look at the others, they range between 108 and 181 per 100,000, in terms of Finland, Norway, and Denmark. So, I don't see anything

magical about Sweden. Now there's been one additional claim, however, that they are on their way to developing herd immunity, this idea of 60 to 70 percent, and I've actually had the opportunity to see some of the seroprevalence data that's been coming out of Sweden over the course of the last two weeks, including a recent study 19:00

report on health care workers. I've seen no data that supports that there's more than 20% of the population of Sweden who previously had this infection, i.e. trying to get to that 60 to 70 percent herd immunity. They are a long, long ways from achieving that. So, to me, this is another example where we all want an answer that works. Something that is not so bad to do, and surely not so bad with the disease. This unfortunately doesn't work here. This is, again, biologic physics at work. This virus is going to do what it's going to do, it may take a different time course than some countries versus others. It may take a different route of who it infects first, in terms of at-risk populations, but it's going to do what it's going to do, and I hope that the Sweden example will cause everyone to take pause, and just step back and say "okay now, what really is happening here?" There are no easy answers, or there's no easy outs.

I hope the concept of the Sweden model is now gone. It's done. People realize it's not what everyone thought it was, and it's not going to be that going forward, and it just means that we're going to be in this slug together without an easy answer.

CHRIS DALL: And, just know for our listeners, we actually have a new 21:00

email, it is now osterholmupdate@umn.edu and you can find a link to that email in our episode description. I'd like to turn the vaccines now. Last week Pfizer announced it was beginning to test its mRNA coronavirus vaccine candidates in US volunteers, and said it's possible, if all goes well, that vaccine could be ready for emergency use by fall. A group at Oxford University has made similar claims about their vaccine candidate, but, Mike, you told Stat News that you're worried about unrealistic expectations with vaccines. Can you elaborate on those concerns? DR. OSTERHOLM: Well, you know, I've used this analogy before on this broadcast and it keeps coming home, just because one of my good friends was an lowa farmer, wants to harvest his corn and half the amount of time from planting to harvest, doesn't mean by planting twice as many acres you can get that done. It still takes a full growing season. Well, that's kind of a common-sense approach we have to look at these vaccines. We can surely do a lot of work to try to shave off an extra period of time, and how we're looking at these vaccines how we're evaluating them, how they are studied for safety, and actually, how they're manufactured, but there is going to be a specific time period is required. A really quite outstanding article by Helen Branswell in Stat this past week, titled "Mounting Promises on COVID-19 Vaccines are Fueling False Expectations, Experts Say," I think laid out all the challenges we have. One being, first, to show that they work, and what does that mean. How long do they work? That's just going to take time. If you are going to try to understand, 22:00

does it protect for a couple of months? Does it protect for six months? Does it protect for a year? Does it protect for a lifetime? We're obviously going to be studying those for that extended period of time. Now we don't have to wait three or four years to find out how well they protect. If

we've got protection for even a few months, I'd say we got something here that in the short term may be worth it. What if we have a vaccine it only protects 20% of the time? Is that a vaccine we're going to manufacture and give to the world? Will it shortchange additional vaccine research that's being done? And so we have many questions like this that need to be answered. Some of the other questions that we aren't addressing but are essential that we do, is with these more than 100 vaccine candidates that exist, and research now being done by countries around the world, how do we actually distribute this vaccine? Who gets it among the many billions of people that want it when it becomes available? Who's first in line? Does it 23:00

matter which country gets the vaccine first, or which country actually has the manufacturing capacity? If we get the vaccine first, or get one of will we share our vaccine with the rest of the world? If we do, do we share it with the high, middle, and low income countries at the same time? That will mean we won't get it here, necessarily, in any time soon. What if China gets a vaccine first? Will they share with us? Will we expect them to? And we've not really addressed any of these international issues which, right now, should be all about a global collaborative, that each of us are helping each other. Maybe we'll have multiple vaccines that will make it, but then

which vaccine gets made where, and how does it get distributed? Will we have enough vials? Will we have enough syringes? Will we have enough needles? If we're in fact going to be giving this vaccine that route, which surely appears to be the case, and so we have so many of these questions that have yet to be answered, that are going to be critical 24:00

before vaccine ultimately arrives and protects people, again, if we can get a protective vaccine, and so I think that we all just have to be a little careful, and I have to say I had a question asked of me, of a president of a college in this country, who was very serious and well intended when he said to me "Well I've just read that we may have vaccines in September, meaning that we'll find that a vaccine works. Will I be able to vaccinate all my students in September?" And I thought, "Wow. No concept of a supply chain manufacturing distribution situation, that in of itself could take substantial time". And at this point with manufacturing, we could be talking about literally months before we're able to make some of these vaccines. So, I don't want to temper the comments that vaccine isn't going to be important, it is potentially the game changer, and, you know, we all hope that we're going to have that 25:00

happen sooner than later, but, at the same time, we have to be realistic about it, and remember we're on virus time, we're not in human time right now. What this virus can do, or will do, in the next twelve to fourteen months could be everything, and if we don't have a vaccine in that time, I can't say that's a failure of the vaccine development community. It's just, we're asking so much of what we have. I also would draw everyone's attention to another article that appeared this past week in Science Magazine by Barney Graham, a very well respected vaccine researcher at the NIH, entitled "Rapid COVID-19 Vaccine Development" and, in this article, Barney lays out, in a very clear and compelling way, the challenges we have with avoiding any safety pitfalls with this vaccine. The fact that there are conditions that we are concerned about, that very well could lead to reactions in humans, that

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could be very very difficult and, frankly, deadly. One I've talked about before on this podcast called antibody mediated or antibody dependent enhancement, where having a little bit of antibody is, in fact, not a good thing after a vaccine if in you do get infected that combination of the little bit of antibody and the virus causes this over vigorous immune response. There's also several other potential risks associated with this development. Now, none of us know that this will happen. We sure have reason to think it could, and we'll have to study that. That's going to be very important, and we may even get to a point, one day, quite honestly, where we do find there such a risk, one out of 100,000 will experience some adverse event, but we also know that many, many more will die if those same hundred thousand don't get the vaccine. So we have some challenges before us that are not just a straightforward "okay, we're studying this thing, it's going to be

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done," and we, in public health, clearly are putting so many of our eggs in the vaccine basket, because that is our one to get on a jail card, but we also have to be realistic, and I worry that when I got that question from the college president I realized how many other people out there are leaning on, leaning into, if not darn right just going head straight into the concept that the vaccines coming, it will be here, you know you guys stop scaring us, we're gonna be okay, and, boy, I hope that that happens but at this point, I surely wouldn't count on it.

CHRIS DALL: Mike, is there a potential for us to have several vaccines, or is there going to be a desire to pick the one that seems to work fast?

DR. OSTERHOLM: Well, first of all, we have a global community that gets to decide that. Every country can licence any vaccine they want, or not want, relative to the regulatory process for that country. It's very possible that we could 28:00

have different kinds of vaccines that work equally well, and depending on which country, which company is in that country, where the studies were done, we could have different vaccines. That could be great, particularly if we could produce more of the vaccine in a shorter period of time, and get it into people so that we can prevent them from becoming infected and ill, so I wouldn't be surprised by that. I think that there is such a major press forward right now by all the different countries in the world that have done vaccine research in the past, the United States, the EU, Canada, looking at Asia, so we'll see. The more of the merrier, the better it is, but again I just come back to the fact that, here in this country, we have to be very careful not to make assumptions that the vaccine will arrive, and somehow we'll be rescued at the last minute just like in a good movie. I don't think we can count on that at all.

CHRIS DALL: So I

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want to turn to another topic that's of great interest to our listeners, and this is the the theory that the coronavirus originated in a lab in Wuhan, and it should be noted this is a theory that's also been presented by some US politicians, notably Secretary of State Mike Pompeo. Our CIDRAP news reporter Mary Van Beusekom wrote about it today. So, Mike, is there any evidence for the Wuhan lab theory?

DR. OSTERHOLM: One of the challenges we have with this pandemic is that, like so many other controversial complicated and painful issues, we always have to throw in the conspiracy theorist part of it, and this has become more than just a minor issue. Some of my most hated and difficult mail activity that I've received over the course of my career have occurred, literally, just in the past few weeks, because it's been suggested that people 30:00

such as myself or part of the deep state trying to undo our government by covering up for the Chinese. You know, that's reality, that's what it is, but the bottom line message is that no, and I think Mary's article, which, you know, I was not part of, I read it like you, really, I think, lays out in quite amazing detail, what the conventional scientific wisdom is on this issue, both in terms: "Was it a man-made virus?" The answer is absolutely no. "Was it a virus that leaked out of the Wuhan laboratory?" There is no evidence to support that, including the fact that this particular virus was not even among the inventory of isolates in the lab prior to the outbreak, and I feel quite confident that to continue to fixate on this only takes us away from keeping our eye on the ball of

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preventing the pandemic. So I'm very confident that this is not an issue, it is not one that will ever necessarily be decided by everyone, because of course how do you go back now and show for a fact that this virus jumped from a pangolin to a human on such-and-such a day and did that, but at the same time as the body of evidence is compelling, and I have complete confidence that this is just another example of Mother Nature doing that Mother Nature did. We didn't suspect when SARS happened and jumped from any animals to humans, or when MERS occurred in the Arabian Peninsula and jumped from animals to humans, that there was some government intervention this is just the same way, and I think that I know that this won't end it, I suspect my comments right now will only make matters worse for some, but I am very confident that we need to move on, and this is not an issue I urge all of you to read Mary's story 32:00

with all of its interviews, all of its links, I think you'll also come away with the same conclusion. CHRIS DALL: As you know, Mike, CIDRAP last week published our second viewpoint on COVID-19, and it was on crisis communications, so using that as a guide, if you had to grade the nation's government leaders and public health officials on their communication during this pandemic, how would they fare?

DR. MIKE OSTERHOLM: I think we all need to go back to school. We have some challenges ahead of us. First of all, I just have to say, again, thank you to Peter Sandman and Jody Lanard, who wrote this particular piece, they have been without a doubt among the very most important and critical thinking crisis management and messaging experts in the world, and we're very fortunate of them participate with us. I'm sure I sound a little bit biased here because I have been a student of theirs for many years trying to learn how to best do communication under 33:00

difficult terms, in this case of crisis, but I think that they have demonstrated time and time again the success of their approach, and many companies, many organizations, even some governments have used this information, when in a crisis, to move forward. If I could just, again,

briefly urge everyone to go read this piece, it's on The CIDRAP Viewpoint site, number 2 report. I think the first thing, the first message out of the chute that they come out with, is one that right now is a real challenge, and that is "don't over reassure" which typically backfires and lowers your credibility. This is the most common crisis communication mistake. I don't need to say anymore about what's happening at the federal level. You know, we are talking about a virus that's going to take our population from a 5 to 15 of 20 percent in some select areas of previous 34:00

infection, to one of sixty or seventy percent unless we have a vaccine that edges out any of that number beforehand. Think of all the pain and suffering and death and economic disruption we've had to get to this point now. How much more do we have left? Now, that's not to scare people out of their wits, it's to scare them into their wits, and say, "okay, what are we as a government doing? How are we going to handle the potential major increase in cases? How are we going to make sure that our businesses maintain some kind of semblance of operation in ways that work for society and also works for the businesses? How are we going to plan economically?" So that we already have one paycheck out there for this initial shutdown, but I could see us being shut down multiple times for extended periods of time that are going to require more investment by the federal government just to get us through this. Let's start thinking about that now, and so I think 35:00

the idea of don't over reassure, and it's so funny because I will get emails from time to time saying "you know, boy you're a scary guy. Why don't you shut up?" and you know, I've often said that you know, I'd rather be sorry for something I did than something I didn't do, if it could make a difference, and I think in this case, this is where you should never sugarcoat anything, and you should never quote it in fear. You should just say this is what we know, and this is what we don't know, and this is how we're gonna find out what we don't know, and what to do. The second recommendation from them actually follows on that comment, they basically said, you know, proclaim, not just acknowledge uncertainty, because doing so is paradoxically more credible than voicing overconfidence. Be willing to speculate responsibly, and acknowledge opinion diversity. Well that's me. I unfortunately have to admit, but I do it with as much honesty as I can, I probably know less about influenza today than I did ten years ago, because the more I've learned too less I know, and clearly

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we're in that same mode with the coronaviruses. You know, I was one of those people that very first week of January, saying well this is never going to be a pandemic, this is another MERS or SARS situation, was I wrong, but by January 20th we knew what the truth was going to be. The next thing is to validate emotions. Your audience is in your own. You know, I think this is one of the most difficult parts for all of us, because we don't like to have to deal with our emotions, particularly when we deal with business, and we deal with the scientific issues, and I think that's as I started out this podcast. Emotions are everything about us. You know, I hate going to bed at night wondering, "Is tomorrow my day? Am I going to get hit by this damn thing?" but that's what we have to do, and I think that helps us all kind of come to an even plane, where we're all, you know, we're all in this together in that regard. They also said give people things to do, better yet offer a menu of things to do,

and we're all working on that. The challenge with this is that you have to have a group willing to come together to agree to that menu, and I think that's been the challenge that we have, because if you don't believe it's going to be a long-term problem, then you don't have to take on this menu, and that's something we have to work at. Admit and apologize for errors. You know, I promise you from our Center we will always do that, and if we make a mistake, we do, and I think that's a really very important point too, is that we learn from those, and sometimes your mistakes are not even intentional. You know, I sometimes think about after all the hours and hours and hours I talk each week, I mean oh my god, you know, what could I have said wrong this week that's just a slip of the tongue? But it's really important to admit and apologize for errors. Okay, the next one is to share dilemmas, including the various options for moving on a lockdown. I have said for some time, we cannot live on the guardrails of this 38:00

experience. We can't live in a 15 to 18 month shutdown where we try to duplicate what happened in Wuhan to make sure no one gets this infection. We are going to sustain casualties, it's pure and simple. We're in a war with this damn virus, but at the same time we can't just let this go willy-nilly, as it could very well, if we don't try to bring some control to it. If that happens, we will see many, many deaths, many severe illnesses, we will bring down our healthcare system as we know it, from time to time, and not only that, but we will infect many many healthcare workers will not have adequate protection, and we will compromise the health of the entire community, even beyond those with COVID-19, the heart-attack patient, the person with the stroke who can't make it into the hospital, because they're overfilled, or they don't have adequate resources to provide the care. So we need to share those kinds of messages and options for,

39:00

"What do we do?" You've heard me say, on multiple occasions, we need to thread the rope through the needle. We're trying to find ways. One of the things, I think, that has been a challenge is, "What do we do to protect that part of the population, which is otherwise not protected?" and we now know that, in fact, as we look at the comorbidity risk factors that exist in several studies, in terms of increasing the risk of severe disease and dying, that they are substantial, and in fact even here in Minnesota, we've looked at this information as related to a recent study that was put out by the Kaiser Foundation, and it turns out that upwards of 40% or more of our population actually has underlying risk factors that could put them at increased risk for disease. Well now, how are we going to thread this rope? By age? By gender? By 40:00

characteristics such as something like body mass index, where we know with obesity today you're at an increased risk? So we've got some real challenges there, but this is what we need to be doing right now, is we need to basically laying out the options, and we're not having that discussion at a national level at all. I will continue to push for that discussion. I will put our points out there, saying that the guardrails are not acceptable, the middle ground is where we gotta go. We can't be afraid to talk about that. We can't be afraid to acknowledge that we're in this for the long haul. So we have to share our dilemmas. Finally I think the last recommendation is, in a sense kind of ties it all together, in which accept that the principles of crisis communication are

counterintuitive, and that crisis communication is a field of study and practice. Meaning that telling people what they don't want to hear, proclaiming you're wrong, telling them you don't know

41:00

sometimes, trying to get others to participate with you on solving dilemmas who may not be your best friend, for that matter, they may not even like you, but that's what we have to do, and so I think that this article that, I just urge everyone to read it. I think you'll find it to be very, very helpful, and I think it represents a very important tool as we take on this pandemic.

CHRIS DALL: And what's the focus of the next viewpoint going to

DR. OSTERHOLM: Our next viewpoint is going to get into testing, and I think it will be a document that is unlike any to date that have occurred with testing. You know, testing has come down to the concept of a test, and it's so much more than that. It's a system. It's all the way from providing the machines, the reagents, the sampling devices, all these things that we need, that we haven't even thought about, and what I mean by thinking about it, for 42:00

example, we are now running the testing machines in this country in ways that they've never been run before, meaning that we're running 24/7 to keep up with all the testing. Remember, these are the same machines that existed before for testing many other specimens for other clinical conditions. We're beginning to see that challenge of these machines breaking down, the availability or lack thereof of parts, technical experts to come and fix them, we haven't even thought about that. You know, if you and I had a brand new car that would go 200 miles an hour and we could run it for three hours and go, "Wow, we just went 600 miles, isn't that something?" That might work, but what if you did a 24/7 for six weeks in a row? I suspect that by the end of that time period, that car wouldn't be running nearly as well. We're having that challenge right now. This particular document will also go into the issues of the different kinds of tests, and there is no perfect test, we have to understand that. They will give you false positives, they'll give you

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false negatives, and depending on what you're using it for, that may be an important point. When I hear someone say that "we're screening our employees, or those people in a group in a work area, so that there's no one here who has the virus, but five or six percent of the time I get false negatives," that's a lot of people, that all it takes is one of them to come into your workplace not knowing that they're infected. We're going to talk about that. We're going to talk about the system. We're going to talk about how information is used. We're going to talk about smart testing, the right test at the right time, for the right person, for the right result, for the right outcome and action. That's all part of the system. When should be testing? Where should be testing? And, right now, it's very frustrating to see these experts, who have never really ever been on the frontlines of public health, they just come out and keep saying, "we need 40 million of this test a day" or, "we need 30 million of that whatever" without any

understanding, what are we doing this for? One is, of course, we need to diagnose patients who have COVID infection. We want to know what's happening with it in our communities. When I

hear people say we need testing to re-open, I'm asking them why? It didn't matter this time. Nothing I saw impacted testing to reopen, and so what we're gonna try to get at is the heart of this, because testing is very important, but it's part of a test system. So I'm looking forward to this, and then right after that, we're doing contact tracing, the next document after that, and I think people will also find that to be interesting. It'll be very challenging term in terms of what has been talked about with contact tracing, what can be done, what can't be done, what are the limitations, what are the opportunities, and so we'll continue to keep hitting home on these, and hopefully you find them useful, and we'll let you know when the next one on testing comes out. CHRIS DALL: Well, Mike, you like to wrap up the podcast with some parting words for the audience, what do you want to leave our audience with this week?

DR. OSTERHOLM: Thanks Chris.

45:00

Let me just conclude again as I have in past podcasts, about the importance of kindness. With all the things we have going on, please don't forget how important that is, and I received an email this week that brought tears to my eyes, about the concept of kindness. Somebody who had listened to the podcast last week, the title of it is "Kindness Update: Bagpipe Band New Normal and Oval," and named Jerry, he said, for all with some humor, my bagpipe band playing at blank Children's Medical Center for nurses, have changed. Bagpipes bands play in what's referred to as a circle of formation. I circled, playing for me, in new normal oval formation, and he circled himself in this six feet apart oval formation. Picture taken by my daughter, a pediatric critical care nurse at the hospital, my wife and I are so proud of her

dedication and steadfastness, and are so very worried for her and her nurse practitioner husband's safety. Yet he's had time to send this to us, and they went and played at shift change just for kindness, and they maintain their physical distancing. That's what we need to do more. Everybody, go out today and be kind, and thank you very much, and I look forward to talking to you next week. Thank you.

CHRIS DALL: Thank you, Dr. Osterholm and thanks for listening to the Osterholm Update: COVID-19, a weekly podcast from the Center for Infectious Disease Research and Policy. We'll be back next week with another episode, until then you can keep up with the latest COVID-19 news by visiting our website, cidrap.umn.edu.