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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. After focusing on a single topic last week, we've got a lot of territory to cover for this week's episode of the Osterholm Update, but before we get started, Mike, who are you dedicating this week's episode to?
DR. OSTERHOLM: Well, first of all, thanks Chris, it's good to be with you again.
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You know, with all the reader and listener email that we've gotten over the course of the past week, it's clear to me that we've been able to establish, you might say, a podcast family here that I think is a very special situation. I, first of all, have to thank everyone for taking the time to read the transcript or listen to the podcast. I know you all have lots to do, and you have lots of different sources of information you can use to get what you're looking for with regard to the COVID-19 pandemic, so being here with us each week is a very special gift, I appreciate that, and so I've decided this week I'm going to dedicate it to all of you. This is dedicated to all the listeners, and someday I'm sure we'll get a song out of that, dedicated to all the listeners, somehow, you know, Mama's and Papa's could try to do "Dedicated to the One You Love," we'll do it to dedicated to all the listeners, so thank you for being here with us this week.
CHRIS DALL: Mike, the last week and a half has seen an outbreak of protests in the U.S. against racial injustice and police brutality in the wake of the killing of George Floyd.
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With mass gatherings in several US cities, what could this mean for COVID-19 transmission?
DR. OSTERHOLM: The protests have surely added an additional factor in considering what is happening with COVID-19 in the United States, and it's not clear to us, at this point, what it means. In the past two weeks, we've had a number of individuals, in the hundreds of thousands, if not millions, who have been in closed public spaces protesting, and normally, we would think that that would be a major risk factor for everyone being together, but the fortunate issue was, from a COVID standpoint, they were largely outside and we know that the virus tends to dissipate into the air, any air movement will greatly reduce the concentration of the virus around that infected individual, or the air that someone standing next that individual might breathe,
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and so, from that perspective, outdoor air is by far the best place one can be in terms of reducing the risk of transmission. Now, it's not a perfect fix, as we learned in 1918, when a variety of cities, against the recommendations of the public health agencies, went ahead and actually had war bond parades in support of World War I and fundraising for that war, several cities reported marked increases in influenza cases among parade attendees two to five days after the parades. So, clearly there was some transmission still occurred outside even at that time. Now, there are other factors that can play a role here in terms of the protestors and their Exposure.

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Some of them were exposed to tear gas and to smoke from fires, which in turn induced coughing, if any of those individuals were infected, they become potentially much more effective at transmitting the virus through the coughing action, which could make them more highly infectious to those around them. In addition, loud voices, singing, shouting, all are aerosolizing related activities that can make someone much more capable of transmitting the virus so, we don't know what that means in terms of what the risk is among those protestors. In addition, a smaller group were arrested. They were put into holding vehicles, often small to medium sized buses, and in some cases for several hours, before they were transported to a jail for processing, then put in a jail cell, and each of those event areas would be more attuned with what we'd consider indoor air,
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and the possibility that they actually could have had enhanced transmission, as you know, we've surely have seen enhanced transmission in prisons. So, the bottom line is we just don't what that means, yet at this point, I think the next 10 to 14 days will begin to give us some sense of that if we get people in and get them tested. Now, how does this fit into the bigger picture of what's happening with the pandemic here in the United States? And it is frankly quite confusing at the best. We know that we've been reopening the economy, a term for which means basically, you know, back to normal. We also are very aware of that not just within business but in life in general, we're seeing more and more people who are and acting as if kind of it's all over with, done. We've seen many activities where people are not only together again, they're not wearing any kind of facial coverings, just assuming that, you know, the pandemic is over with.
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That surely is a challenge also, and this whole reopening issue has been followed very carefully. Today we have over 18,000 new cases, 722 deaths, but putting that in perspective, that actually is a drop in what we've seen. If you look at the number of cases and the number of deaths, they have been dropping quite precipitously since April, and for the last two weeks has been somewhat level, but yet still dropping, and when you look at actual states and territories, in the case here 53 states, two being territories and one city, Washington DC, a week ago seventeen of these entities had increasing number of cases. Today that's at 21, up four.
7:00
Last week 20 states, territories, or cities were basically flatlined in terms of new cases. This week it's only eight, and what's happened is, from last week when 16 of these territories, states, cities were decreasing, today that's number is 24. So, when you look at the total here, it seems almost as if we have two totally different patterns going on. One is an increasing number of locations with cases increasing and additional areas where cases are decreasing. I think we have to be very cautious about these numbers from the standpoint of testing and sampling. We know that some areas are doing more aggressive testing now than they've ever done. That surely can account for some of the increase in activity that's being seen in the state, not that these actual more cases, but they're just more cases getting counted. We definitely need to do a better job from a surveillance standpoint in this regard.
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So we have a better handle on what's really happening. So right now I would say, you know, it's going up and it's going down, and we don't know. Particularly when you add in the potential impact of the past two weeks activities. Now, a third piece to all of this, which is a challenge, is of course, you've all heard me time and time again, asking the question what will be the scenario that this virus will follow? Going from the five percent rate of infection in this country, that to date, that have been infected I should say, and how is that going to get to the potential 60 or 70 percent? What is the route that this virus will take? And of course, you know, I've talked about scenarios in the past. Several that are what we would call coronavirus like patterns, you know, flat burns, a little kind of foothill hills and valleys type activity, or we could in fact see one like a pandemic influenza model, where in that case,
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as I've shared with you in the past, if you look at previous influenza pandemics, you often saw a first wave of three or even four months activity. It was more what we call sporadic, not sporadic in terms of cases in each location, but each, just a number of locations impacted, some areas would get hit hard, and then we would see the virus, from whatever other way to describe it, disappear, or at least largely be absent. We saw that in 1918. Even in 2009, with H1N1, if you look at what happened there. You saw the early burst of cases in mid March into early May, cases leveled off quite substantially, they're still present but almost in a trough, and then late August cases came back in a substantial force, peaking out the first week of October, well before vaccine got here to have any meaningful impact.
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Now, there was nothing done in either 1918 or in 2009 that could be considered major human efforts to reduce the risk. Surely in 1918 there were some cities that did more, but on a whole this virus really did what it was going to do. You've heard me say before, you know, in a case like that, you know, we're not driving this tiger we're riding it, and so we don't know if that's happening. If we keep seeing the number of states dropping in terms of cases at the same time that we're rolling out our society back into some sense of normalcy, that surely means that the virus is doing what it's doing not because what we're doing, and so we're gonna need to wait and see. 1. What role does the protest play in terms of increasing transmission? 2. What might be happening as we get better information on who's getting tested and who's not, in terms of getting better numbers?
11:00
And 3. Could we in fact, be seeing cases drop before a potential summer trough-wave kind of phenomena? And we just don't know the answers to any of those, at least I don't, and I would say this is a stay tuned moment that I wake up every morning, and I go think about what's happening today with this virus, trying to understand what it's doing.
CHRIS DALL: So let's turn to the global situation. On Monday, the World Health Organization said that while the situation in Europe is improving, globally it is worsening with a one-day high of 136,000 new cases reported. So we've seen how wealthier nations have struggled with COVID-19, how concerned are you about the abilities of countries in Latin America and Africa to respond to a surge in cases?

DR. OSTERHOLM: Well the only way I can describe it is, much of the rest of the world is on fire right now. You know, we've gone through our fire in recent months, we're still very much in it, but not to the extent that we were two and a half months ago.
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Two things here: one is that we're not hearing a lot about this situation, because this is low and middle-income countries in the world, and that by itself is an important comment, because we all are together on this pandemic, what happens in these countries will have impact in the United States, from a standpoint of virus spread in terms of the issue of just supply chains and manufacturing, but most of all just global humanity, and it is a tragedy to understand that if you look at the countries right now that are suffering so miserably, you're seen literally a major increase, a doubling in cases in the areas of South America, Latin America, South Africa, and southern Asia, over what it was just literally a few months ago.
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Right now, Brazil has more cases than any other country outside of the United States, is reporting more daily deaths than any other country in the whole world, well over a thousand new deaths a day, there's a leading case area, but now India also is increasing, where they now, their caseload is about the world's fifth largest with over 270,000 cases, and that's rapidly climbing, and in fact infections in Delhi right now are expected to climb to half a million by the end of July, and city officials have commented there's just not nearly enough hospital capacity to handle such an outbreak. We're seeing infections rise quickly in South Africa, yet that country is easing its lock down, because of economic issues, so what will happen there? We don't know. I would consider all of these to still be, basically part of a first wave, as we might see that just got there a little later but it really is pointing out something that again, with this pandemic, if you just wait a week or two, some of the conclusions that you had just made may very well go out the window.
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I can't tell you how many people I had comment to me, that there must be something very special that the Indians are doing, or that the country south of the Equator were doing, because in fact, there was in relative absence of cases, and you know, I've learned this lesson almost on a daily basis, just wait a day and see what happens, and sure enough, unfortunately, we're seeing this terrible increase in cases. I might add that it's somewhat surprising, if you look at the ten countries right now that account for more than 75% of the cases, it's Brazil, India, Iran, still continue to have a problem, but it's also France, Chile, Pakistan, Bangladesh, South Africa, Sweden, notice Sweden is number nine, and Colombia, in that order, in terms of the relative number of increase cases,
15:00
and I think it's really just pointing out to us that as we look at a global response, it's not enough just to look at what's going on in the United States. We have to understand that this potential global response is still a very, very critical piece, and specifically, as relates not, as I said earlier, to humanitarian issues, but from a global economy, from a global supply chain issue, you know, we're hardly done with this around the world. I find it interesting to see how the United States and the citizens often think that we're over with this, it's done, you know, let's move on, when the rest of the world is still on fire, and that's a very unfortunate viewpoint to have that we've

kind of forgot about the rest of the world, but we have, and, you know, I think this is still a harbinger of things to come.
CHRIS DALL: I want to get right to an email question from one of our listeners, because it deals with the controversy that has erupted this week, and led to a lot of questions.
16:00
Robert writes "This week, Dr. Maria Van Kerkhove of the WHO, said during a press conference that is quote "very rare" unquote, for asymptomatic individuals to transmit SARS-CoV-2. This sounded contrary to what I've heard in the past. What are your thoughts on this?"
DR. OSTERHOLM: Well, first of all, thank you Robert for your question, we will send you out a book this week. I will inscribe in one of the copies of Deadliest Enemies for you, we appreciate your question. Let me, let's just take a step back, and separate out what was the event of yesterday with Dr. Van Kerkhove, who, in a press conference, made a statement referring back to an issue that was actually not even the purpose of the press conference, and commented on the fact that there are very few studies really looking at the issue of, do asymptomatic individuals transmit the virus? And she was referring
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And she was referring back to several contact tracing studies that had been conducted, where individuals who are asymptomatic did not appear to transmit to very many people themselves. Now that's different than saying there are a large proportion of cases who are asymptomatic or mildly ill. I think it was an unfortunate choice of words in her answer, something all of us have done many times. If I had a nickel for every time I stuck my foot in my mouth, I could take all of the listeners here on probably a very nice evening dinner trip, and so I give her credit today, she came back, tried to clarify the point, but I think what it really is highlighting, is that we have far too many experts in this business, who because they have a PhD or an MD behind their name, seem to know everything about COVID, and I think we have a lot of questions that we don't understand. I, every day, I learn
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I, every day, I learn how much I don't know, and I must tell you I don't really understand, as much as I've studied this, and I've studied it extensively, what is happening in terms of asymptomatic, and the issue of symptomatic transmission. What does asymptomatic mean? We have those individuals who have not had any definite symptoms that they report, who are infected and claim that they never have had a symptom, and then we have those who are pre-symptomatic who say I'm fine today, but I do get sick tomorrow, but I was infectious today. I don't know how to answer that when we look at the studies of groups that have been tested and found a very large proportion of them infected, but not with symptoms, and then there have been two studies now that have actually done follow-up of these individuals and actually done radiographs, chest x-rays,
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and found that a large proportion of them will actually have the broken glass kind of radiologic findings indicating that there is in fact damage in the lungs that's occurring, and they're claiming they're asymptomatic. I think a paper that will be a very important one, was published this past week in the Annals of Internal Medicine by Dan Oran and Eric Topol. Eric is a dear friend, respected colleague, at Scripps, and basically they highlight 16 different clusters, large cohorts

in some cases, of cases that were, or individuals who are tested to be found positive, whether it's in country Iceland, a big study in Italy, there have been studies done in the Diamond Princess, the Boston homeless shelter, Argentine cruise ship, etc. You go down the list of a number of these different studies, where they found up to half of the people or more, were positive but totally asymptomatic, claiming no symptoms, and so I think that we really need to look at this much more carefully and my sense is the following:
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that there are differences that we yet cannot explain where in some instances we can get a very high percentage of people who are involved with an outbreak who get infected and who develop symptoms. We just saw that in the call center in Seoul, Korea where a very large proportion of the individuals who are infected, in fact get sick. Then we have these observations that Dan and Eric have shared with us, where a very large proportion of people don't get sick, they don't report any symptoms. That by itself is an important distinction. We need to study that. I think there's things to be learned about this virus that we don't understand how it impacts certain people. Is there blood group issues? What is the gender issue? Things that we just have to be humble enough to say that we don't know. The second thing is, when you are asymptomatic or pre-symptomatic? How much do you transmit?
21:00
And that was the point of where Maria's comments were aimed at yesterday and in the context of contact tracing, saying, you know, go for the people who are clinically ill, they're more likely to transmit. I don't know that's true. I think there are clear examples where we do have asymptomatic people who've transmitted, and so it can't be a blanket statement, but I also don't think that you can say that up to 40% of the people who are infected are infected by asymptomatic people who are transmitting either. So, I hope that this whole discussion leads us to additional studies, important studies on understanding asymptomatic status when infected, what it means, why some people don't get sick, and others die, and who transmits and who doesn't. It would help all of us. So I think we should take this opportunity, rather than being highly critical of someone who made a misstatement relative to the moment, and understand that this is a learning opportunity for all of us. Let's move on.
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I have other issues with WHO's position, particularly as they look at respiratory protection, but this is not one of them, and I think that I hope it blows over quickly, in terms of the debate about what happened, but I also would say that we need desperately right now to learn much more about this status of asymptomatic, pre-symptomatic, who get sick, who doesn't, and what that means.
CHRIS DALL: So, speaking of respiratory protection, Mike, you covered the issue of masks very thoroughly on the podcast last week, and since then there have been some new developments. The WHO called on nations to encourage the general public to wear masks in places where there is community transmission, and then also last week a large review and meta-analysis in The Lancet suggested that the use of masks could result in a reduced risk of infection. What are your thoughts on these developments?
23:00

DR. OSTERHOLM: Well first of all, thank you to all of the listeners who sent me responses or feedback on that session. It was a difficult one, because I was trying to lay it out as succinctly and yet as fairly as I possibly could. Some of you were still not satisfied, and it was interesting because the questions you had were actually many of the same questions I still have. Let me just be really clear, I am not for or against masks. I want the data. I want to understand how well they protect or don't protect, and allow the public to understand that. I think that we're not doing anyone any favors, either from a disease prevention standpoint or from an emotional comfort standpoint, by just giving them some recommendation to do this without any context of what it really will mean, and so I still stay in that focus, and I will come back to that in a moment, because it's not enough I'm going to talk about it.
24:00
I better do something about it, and I'm trying, but I think that first of all, let me just point out that we continue to have mass confusion about masks. We mix up masks much like some people would mix up currency between countries which I do, and I travel all the time, I don't understand, I can't remember which one is which, and how much is what's worth. Surgical masks are very different than N95 respirators, and they're both very different from cloth face coverings or masks, and we mix them up in such a way that we will often call surgical masks "medical masks" and people think that they mean N95s, not surgical masks, and then studies get confused by their findings, and then we will often take surgical masks and cloth face masks and put them into one category and really we need to look at all three of them. The best example I can give you is what happened with this Lancet review, which came out, you know, saying that there was some evidence of masks having an impact,
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but they were all medical masks, there were only three studies in the entire, all the different ones they looked at, that even looked at community individuals, and those were largely medical masks, i.e. surgical masks, there was no cloth masks in there. I stand by the point that I made earlier that the only study that has been done was one done by Raina MacIntyre, looking at cloth masks and surgical masks in healthcare workers, again, not even in the community, and of course, I shared with you what those findings were. So one of the challenges we have is when you hear the word "mask," just know that has become a generic word for a lot of different things, that we in public health can't let happen, because we need to give you the very best information on what you can do to protect yourself, and it matters what kind of mask you have. Surgical masks and N95 respirators need to be saved for healthcare workers.
26:00
We now have over 630 healthcare workers who have died in this country as a result of their COVID infection, many of those were occupationally acquired. Inadequate protection. That is just simply unacceptable. That's unacceptable. So, we, if we're going to use masks in the public setting, we have to know we're going to be using cloth face masks, and we can't be using these other masks, or else we will, in fact, be taking them away from the people who need the most, which I will tell you right now, right here in Minnesota, we still have a shortage, and that's a key issue. So I think first of all, just using that example of what happened with The Lancet piece is one where it says, you know, you got to get the right information, and that one really didn't do that. So one of the things I just wanted to point out also, is how the confusion continues to go

forward, and I won't go into all the articles in The New York Times this week that get into this issue,
27:00
but there was one published on May 29th that I think is actually quite a luster tip and it was actually done and it's virtually kind of an op-ed piece called "Testing is the key to beating coronavirus, right? Japan has other ideas," and it was an article about all that Japan had done, and this has come up time and time again, how they've done this with their masks, and interesting enough of all the interviews they did in this article, not one of them mentioned the role that masks played in what Japan did to respond, and that came up again, then, in a June 6th article in the New York Times which was another commentary piece as such, and the title of that one is, "A secret to Japan's virus success, right in front of its face," implying that the masks played a very key role, and in this, I just wanted to point out again that as has happened so many other times, there comes back these statements and Jeremy Howard,
28:00
who is behind Masks for All, was quoted in the article saying, "Japan, I think a lot of people agree, kind of did everything wrong with poor social distancing, karaoke bars still open, and public transit packed near the zone where the worst outbreaks were happening," Jeremy Howard a researcher at the University of San Francisco, who has studied the use of masks, said of the country's early response, "but the one thing that Japan did right were masks." Well, you know, you can argue that was the case with all the other things that went on, I would come back to my analogy I use last week about the sign I put in my front lawn saying "No Elephants Allowed" and for three years now, I've not had a single elephant. I thought it was very interesting that in the same article though, a well-known Japanese writer, associate professor at St. Luke's International University in Tokyo, Dr. Onishi, said "many people think that just covering their mouth and nose is enough," he said, "if they wear a mask they think they can go into crowded places, but that is still very dangerous,"
29:00
he, by the way, wrote the book "The Dignity of Mass," and I think this was trying to get at the point, I was trying to get at not to say masks can't make a difference, we need to understand that, but we also have to understand what do we do to reduce the risk, and I'll keep coming back to that over and over again, I just want the data, so that we can share that publicly with the group. Now having said that about the Japanese experience, and again, people coming home about how important it is, it was interesting that the two countries that seemed to have done it about as well as anybody, Iceland and New Zealand, and I give them both great credit for the activities. New Zealand, this week, virtually declared themselves virus-free, and it was a remarkable activity. They, and they put out several documents on this, never used masks as a part of their control program,
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and actually have a document laying out the pros and cons of which they list out many cons, but I thought it was interesting, there was an article that appeared this past week in The New Yorker on how Iceland beat the coronavirus, and there is a comment in here that just happened to be passing, Dr. Moller is the Health Director for Iceland, and the author of this article says, "I asked Moller about masks. In Massachusetts, an executive order issued by the governor requires

masks be worn by anyone entering a store, taking a cab, or using public transit, and violators can be fined up to $300." In Iceland, masks aren't even a part of the public conversation. Moller said that "wearing one might be advisable for a person who is sick and coughing, but that person shouldn't be walking around in public anyway. We think they don't add much, and they can give up false sense of security," she said also, "Masks work for some time, then they get wet ,and they don't work anymore." Again, this is just another statement versus another statement.
31:00
What it's really pointing out, I think there are many of us out here, not just a few there are many of us, who are just saying, please, let's study these, let's get the information we can, so we can let the public know what it is that they're actually doing or not doing, and not just go on what I would call this mindless recommendation. I say mindless because if you are not willing to listen to the need for data, then I think that's what it is. Now we, at CIDRAP, and I'm very proud to announce, are actually, have set up a very major effort in which we're bringing together more than 20 of the world's leading experts in industrial hygiene, respiratory protection, aerobiology clinical medicine, respiratory protection in general, in a effort called infectious dose, how does it inform decisions about exposure controls for preventing transmission of SARS-CoV-2,
and what we're really attempting to do is identify and review all scientific data that addresses the concept of infectious dose, and the role it may play in the respiratory transmission of this virus.
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It's very important understand infectious dose is how much virus is in that air, in that setting, how
much are you breathing in, over what period of time? If I could tell you going to a grocery store, you were likely not to be at risk if you were experiencing what might be there for 30 minutes, that would be one piece of information will be helpful, and if I said that a mask could reduce that, a cloth mask, by so much, that would be helpful, but if I told you that if you were there for more than an hour you'd likely be infected, given what's there, that too can help you then understand what it is you can do to protect yourself. So I'm very pleased, the the people we've asked to assist us in this effort are literally some of the best people in the world. From Europe, from Asia, from the Americas, and we hope to have results of this in the near term. It'll be very objective.
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We just want to know what it is we can look at about the role of the infectious dose of SARS-CoV, and what you can do to protect yourself. So I promise you straight talk, I promise you what we find, we'll let you know. Hopefully we can find enough information that can make a difference, so people can make informed choices. That's all we're asking for: informed choices, and I just wanted to let you know that next week I'm actually going to spend some time going over a lay person's understanding of a bit of aerobiology as relates to the issue of respiratory protection, the concept of droplets, airborne disease, aerosols. You know, I've had the good fortune to have three graduate classes in this area, and I've spent a lot of time working with some of the best minds in this issue of industrial hygiene aerobiology of such, aerosol science
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and I can tell you it's frustrating when I see or hear from so many people who have advanced degrees, but have never spent any time understanding this, who

just espoused the same kinds of, you might say rhetoric, almost about this issue. It's a complicated area. I don't pretend to be an expert. So that's why I say I'm a layman, but I've really worked hard, I've spent hundreds of hours just on the SARS related issues around respiratory transmission, respiratory protection, and so I think it would be helpful if I can share with you what I've learned. I don't want to tell you it's the expert opinion, but next week I will actually spend time trying to give you a sense of what we know about this issue, and what we don't know, and how that impacts on what we need to think about for protecting individuals.
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So you can count on that next week, kind of lecture 101 respiratory protection, based on a neophytes understanding, but the neophyte who's at least had some experience working in this area.
CHRIS DALL: You spoke with Helen Branswell of Stat recently, about the utility of repeated follow-up testing for people who have had COVID-19 and are recovering. What is the problem with repeat testing?
DR. OSTERHOLM: Well, first of all, again, I know I've cited Helen's articles often here, and I want to say that I very much appreciate all the CIDRAP articles, I'd like to highlight those, but I might be considered biased, but Helen did a piece this week that, it's not easy to read, not because it's not brilliant journalism, it is, but just the tug of heart. I am in the article, I'm quoted in it a few times, but she's discussing the issue of these continued PCR positive tests that people experience once they've been infected, and how they've been interpreted to mean that people are chronically infected,which they're not,
36:00
but this story starts out the very premature infant was born via cesarean section and quickly whisked away to the neonatal intensive care unit before his mother could even lay eyes on him. Over the next eight weeks the only time she saw her baby was when the NICU staff sent photos, or when a nurse Facetimed her while the baby was being bathed. The young mother who gave birth at Montreal's Hospital tested positive for COVID-19 when her baby was born. For 55 days afterwards she repeatedly tested positive for SARS-CoV virus, because the hospital would not allow her to return after she was discharged, meaning she could not hold her nurse or baby for the first two months of his life. She was clearly an example of where we have seen long-term PCR positivity that has nothing to do with active virus there.
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We now have quite good data the Korean CDC, which first raised this issue, has finally now validated the fact that, almost in all instances within seven to ten days of your infection onset or your illness onset with infection, you no longer have viable virus that can be cultured either from the throat, from other body fluids, rare cases it goes beyond that somewhat, but all these PCR positive results are really just viral debris that is being excreted, which may be excreted for days to weeks to even months after the infection, and this is not unique to this virus, and we've interpreted these to mean that there are actually infected individuals, and so we've kept people off of work, we've kept people from having contact with others in schools, et cetera, et cetera, and this erroneous assumption that PCR positivity by itself means you are infected with the virus and capable of shedding it and transmitting it,
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and so I actually made a recommendation this article, that first of all, that this should no longer be the standard practice, but that journalists should stop publishing these reports where people are purporting that there is in fact chronic infection here, renew infections, and because we're doing such a disservice to these patients. Imagine any one of us here listening to this who had a new baby that for eight weeks you couldn't even get near because of a bad medical result of a test. That's crazy, and we need to move on. We have enough people already in isolation, quarantine, etc, but the data clearly supports PCR positivity after seven to ten days, virtually is never a virus positive individual. It's viral debris excretion individual, and that's an important point.
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So, I thank you, Helen, for that article, there was a number of voices in it including people from the CDC who say, "this should no longer be accepted," and so I hope that we can start to change that, so that people who are experiencing COVID-19 infection aren't also then stigmatized and punished for something that is not a part of what's happening.
CHRIS DALL: Two studies came out this week that looked at the impact of shutdowns and stay at home orders on coronavirus infections. One finding that the shutdown's prevented 60 million infections in the United States, and 285 million in China, the other, which I believe was from Imperial College of London, suggesting shut down saved more than 3 million lives in Europe. I'm interested in your thoughts on those studies.
DR. OSTERHOLM: Well, as all of you know who have listened to these podcast in the past, you know, I always have kind of a skeptical eye towards models.
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They're all wrong, and just some give us useful information, and so I can't say that these numbers are exactly correct, but I think the thrust of these reports are right on the mark. I do believe that they validate that these shut downs substantially slowed down transmission, and that kept some of the locations that were literally on fire from going over what I call the case clip, where they didn't even have the capacity to provide intensive care medicine, as they had completely run out of beds, medications, staff etc, so I think that's actually very real.
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The challenge we have today, is when we are on fire, it's easier to motivate the world to deal with that. It's easier to any of us, you know, if we see people around us infected, dying, etc. Our challenge is that when we started out with this whole approach of basically shutting down, it was to stop this from its initial first wave. Now we're living with it. I just got done giving you the data for the United States, and all the states seeing increases, decreases, but cases are still here, and the challenge is how do we now live with it. Something I've been trying to say for a long time that I've not been very good at helping get accomplished, how do we live with it? Despite all the discussions, and trying to find ways to deal with this, which by the way this will be a topic of one of our upcoming Viewpoints, is basically how to deal with moving on, with living with this virus, and so I think the challenge we have is where we're at right now, you know, Americans, most people in the world they're done with this virus, they've moved on, and I think we're going to have a hard time capturing their attention in any meaningful way, unless there is a big increase in cases, in the short term, and that's the last thing any of us want.
42:00

We don't want that. So, we have got to understand that we are not societies they're going to be locked down for 18 months. We're just not, and hoped that a vaccine will come and save us. How do we thread that rope through the middle of the needle? How do we get that middle stand done? Where we don't just shut down and lock down, and basically not just only do in our economy, kill our society, how do we keep from having that tragic and overwhelming impact of just unfettered cases moving through the system? And so I think that what we're at right now is a very important moment if in fact case numbers are coming back down, for us to take a step back and say, "Okay, how do we ring and unring the bell of what we're going to do?" I mean, I actually had a senior school official from United States today contact me and say, "you know, I understand you know we're all going to go back. If in fact we have to again, close our colleges,
43:00
we have to move people off campus, when will they know to come back again? Will we? Because we surely haven't seem to do it very well this time?" And I think everybody is struggling right now to find out, what are the on and off switches? I keep referring, to me, not a light switch on and off, but a rheostat, and then what are we willing to accept? So I think that the quote unquote "shutdowns," the national lock downs as they've been called by some, the distancing has played an important role, as I would leave you with one last thought. I know that for many, who have suffered dearly from an economic standpoint, it's tragic it's hard. I have personally in my life understood this in a way that I can't even begin to explain, but at the same time, we then have to ask ourselves, what are our alternatives? How are we going to deal with this? What are you going to do about it? And I think we're at a point right now, where we, hopefully, can get people to come together and say,
44:00
"These are the things we'll accept, these are the things we're not." Remember Sweden said they had it down. They had an answer, and of course, that didn't work out real well for Sweden. I will promise you that the pandemic is going to change its face in the near term. To 80% of the cases in Minnesota right now, that have died, have all been in long-term care facilities. They've been in prisons, they've been in in meatpacking plants, and people all look at them and say, "well, that's those people." A horrible concept to think of that way, but I'm telling you those who are in congregate living areas, those who are in congregate work areas, where just one infected person would come in, it was like a match hitting a gas can...boom. That's going to change. More and more people are going to be our neighbors, our friends, our family, our loved ones, and that's going to happen as this virus keeps moving through the population, and those are cases in those congregate areas, are literally burning themselves out.
45:00
We're starting to see herd immunity develop in some of these locations just by the sheer number of cases that they've had. When that changes, and I think we start to see our own family members, I predict that we'll be more vulnerable to doing something about this in ways that aren't, "yes or no." I think about it day in and day out, when I drive along a highway, I'm running late, I got to get somewhere, and I'm going 62 miles an hour in a 55 zone, it's okay, because I'm late, and then I come upon the scene of an accident, and I see them trying to extricate somebody from a car. My heart just thumps. I slow down, and say, "this is nuts. why do I do

this?" and I stay down at 55 for another day and a half, then I'm back at 62 miles an hour, but then I see those families, those loved ones, who have had to experience the loss of their family member, a loved one due to a drunk driver.
46:00
They never, ever forget. They don't ever forget again, and they've lived their life, basically honoring that person to try to avoid others from having to experience what they went through. I think that will happen with this pandemic. I really do. I think as we have more family members, not people who are 78 or 80 or 85 or however, but when we have our 25 year old and our 35 year old and our 42 year old family members who will get seriously ill and die, I think this will change. So my message on this one is: yeah, we've done a lot to, I think, really shave off cases in this particular wave, but I don't see us committed to that in the long term right now, and I think that will change with time, and unfortunately I'm afraid it's going to take more cases to do that.
CHRIS DALL: There's another study out today, led by researchers from Harvard University, that analyzed hospital traffic and search engine data in Wuhan in the fall of 2019.
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What did they find in this study, and what do you make of those findings?
DR. OSTERHOLM: Well, I've had a chance to review this paper at some length. One of the authors is a good friend of mine. The title of the paper is: "Analysis of hospital traffic and search engine data in Wuhan, China indicates early disease activity in the fall of 2019," and they're making the case that this pandemic may have actually started during the last summer. They used satellite imagery of hospital parking lots to try to understand this, and a very limited number of parking lots at that, including a primary one as the Children's Hospital, and then also looking at the internet traffic around symptoms of cough and diarrhea, suggesting that cough was more associated with influenza, and diarrhea might be a more COVID-19 specific symptom.
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When I read this paper I was terribly unconvinced that they had shown me anything at all. Again, it's almost to me like the elephant issue here. I do a lot with diarrheal illness, and in the summertime is when we see it. So people were asking about diarrhea in China, I don't think that that would be something I'd find unusual. The parking-lot data showing there were more vehicles in August, at certain hospitals, including the Children's Hospital, which by the way, typically you would think of not being associated with COVID-19, since children have made up so few cases. My problem is, and I wanted to cover this specifically with you, because these are some friends of mine, but I don't think papers like this should be published, and the reason I say that is unless you have a threshold of information that is proof or relatively strong suggestive evidence, that something like this happened, you shouldn't publish it,
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because we are actually continuing to add gasoline to this issue of what happened in China, and I'm not trying to cover up for China, again, I've already covered my views. I don't think this was an intentional release. I don't think this was an accidental release. I think this pandemic started from an animal to a human strike, but all day to day I've gotten all kinds of media coverage, "did the Chinese cover this one up?" You know, I'm not an apologist for the Chinese, I'm not. We know some of the early day challenges that were had in China, in December in particular, even into early January, so the last thing I'd say, but I think to suggest that now, that

this might have happened way back in August, I think was not a responsible message to put out without more data. If it happened we want to know it, then we better be able to serve up the information to say it, otherwise it's it really, I think is, not a helpful paper to put out, because it does now create a whole other narrative out there,
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that "see look at they knew way back in August, they still didn't tell us," and, you know, as a world we should be coming together right now, as much as we can, not falling further and further apart. So, I don't find any validity in this, if it gets out, and it's all over the media today, the Internet is loaded with this, that you know, this outbreak started, and I just think that's unfortunate.
CHRIS DALL: So, you are co-author on a paper coming out this week in Science on COVID-19 and the flu. What can you tell us about that paper?
DR. OSTERHOLM: Well, I'm very proud of the fact that I co-author a paper with Dr. Ed Belongia, who is a director for the Center for Clinical Epidemiology in Population Health in Marshfield Clinic, and a dear colleague and friend of ours who we do a lot of work with. What we've tried to do in this editorial actually, is just lay out some of the challenges ahead, when in the first time at least in modern history that we know,
51:00
we've had a COVID pandemic overlaid and what will likely be you know another seasonal flu year. I say likely because we don't know what the interference between these two viruses is. So let me just say that I urge you, this will be open to the general public. the embargo is until Thursday morning, and we can make sure you get a copy of this, but we try to lay out just how are we gonna approach this. What does it mean for vaccine? What does it mean for our public health follow-up and so forth? And this is gonna be a challenge. There's no question about that.
CHRIS DALL: And how about the next COVID-19 Viewpoint for CIDRAP? What issue will you be addressing, Mike?
DR. OSTERHOLM: Actually right now we're taking on the issue of surveillance. It's a very key issue, I referred to it earlier, about how well do we know what's really happening in the States, what are the data sources for that, how reliable are those data. We're also addressing how can we most effectively target our COVID disease surveillance using testing and understanding what's going on in our communities.
52:00
How can we more quickly pick up emerging hotspots? How can we give definition to where most of the infections are at, with the idea than targeting those populations even more in terms of prevention activities, and so I think this is a key one. I'm very pleased, again, we have a number of colleagues on this, who I can say come from the old days. Dr. Kris Moore, Jill DeBoer, and I, working at the Minnesota Department of Health for many, many years, worked with colleagues from the CDC, other state health departments, they were key authors in our recent contact tracing paper, and they're also going to be authors on this paper, and it's great to bring back these colleagues. Some of them who are retired, semi-retired, they have a collective experience that is so invaluable. They're really, truly a gift to have because they've lived through a lot of this.

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So we're excited about that, and we look forward to getting that out soon, and then we have a whole series of Viewpoints in the works right now that I think people will find helpful.
CHRIS DALL: Well we've covered a lot of topics today, Mike, but as always you'd like to leave our listeners with some thoughts and some wisdom. What's on your mind this week?
DR. OSTERHOLM: Well, you know, I thought a lot about what we as a nation have experienced. What we've been through in the last two weeks in our communities, the very, very difficult days ahead in trying to right wrongs that have been done to society, how to respond to the COVID situation where we don't want people to basically be locked up for the rest of their lives, but we've got to acknowledge that we've got this situation that is right in front of us with this virus and it's not going to go away just because we want it to go away,
54:00
and so I think it's at a time when we all need each other more than ever, and one of my very favorite songs that meant a great deal to me growing up, that I think that was one that was one of my anthems, was by the great American singer-songwriter Bill Withers. The song was released in April 1972, "Lean on Me," and the first verses go, "Sometimes in our lives, we all have pain, we all have sorrow. But if we are wise, we know that there's always tomorrow. Lean on me, when you're not strong, I'll be your friend, I'll help you carry on, for it won't be long, til I'm gonna need somebody to lean on," and I think, we all, in the end that's true. We all need each other, and so again, I charge you with going out and committing those great acts of kindness. Our epidemic of kindness is going to grow and take over this pandemic, and just remember we do need each other.
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Lean on me, and I will lean on you, and with that thank you very much for spending the time with me again, I appreciate this, as I said at the beginning, I know you have lots of options for getting information, and it means a great deal that you'd spend the time with us here. 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.