Dr. Michael Osterholm

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Marianne O'Hare: Welcome to Conversations on Health Care with Mark Masselli and Margaret Flinter, a show where we speak to the top thought leaders in health innovation, health policy, care delivery, and the great minds who are shaping the healthcare of the future.

This week Mark and Margaret speak with Dr. Michael Osterholm, one of the world's most renowned infectious disease specialist, and a member of President Elect Biden's COVID-19 Task Force. Dr. Osterholm is the Director of the Center for Infectious Disease Research and Policy at the University of Minnesota, whose 2017 book the Deadliest Enemy warns of exactly the pandemic we're having now. He warns that if the outbreak continues on its current pace we could see between 500,000 and 800,000 dead Americans by spring.

Lori Robertson also checks in, the Managing Editor of FactCheck.org looks at misstatements spoken about health policy in the public domain, separating the fake from the facts. We end with a bright idea that's improving health and well being in everyday lives.

If you have comments, please e-mail us at chcradio@chc1.com or find us on Facebook, Twitter, wherever you listen to podcast. You can also hear us by asking Alexa to play the program. Now stay tuned for our interview with Michael Osterholm here on Conversations on Health Care.

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Mark Masselli: We are speaking today with Dr. Michael Osterholm, Director of the Center for Infectious Disease Research and Policy at the University of Minnesota. A renowned epidemiologist he was recently named to President Elect Biden's COVID-19 Task Force. He's the author of more than 300 publications on infectious disease, and pandemic and bioterror preparedness, including the 2017 book, The Deadliest Enemy, Our War with Killer Germs.

Margaret Flinter: Dr. Osterholm has served as the interim CDC Director. He was Science on Board for health and security at the US State Department, and he is a member of the National Academy of Medicine and the Council of Foreign Relations. Dr. Osterholm, we welcome you back to Conversations on Health Care today.

Dr. Michael Osterholm: Thank you. It's great to be back with you.

Mark Masselli: Yeah, I think it's great. You were with us in June and you warned us at that time of the very dire situation come fall if a national strategy wasn't launched, and sadly your predictions are now coming to pass. America is really now a house on fire, as you say, cases are really mounting, hitting 200,000 cases per day, hospitals are full, and yet so many Americans really are not heeding the warnings. I'm wondering if you could help our listeners understand the current assessment. I think you've said, we're now living in the most dangerous public health moments since 1918.

Dr. Michael Osterholm: First of all, thank you for that summary, because it's a painful reminder of actually where we've been, but in fact where we're going. One of the things that I don't think most people have factored in or thought about with regard to this pandemic is the time. What I mean by that is, if you look back at previous global pandemics of a respiratory transmitted virus, in this case, almost exclusive [Inaudible 00:02:59] influenza. Including 1918, the average time that a community is impacted by this is usually about 6 to 10 weeks – as from start to finish of the virus arriving, doing all its deadly work, and then basically exiting the community.

We're now going into our 10th and almost 11th month of this pandemic, and no one really understood what it would be like if day after day after day after day you had that hurricane hitting your shore. But that's in a sense what we're doing right now with this infectious disease situation and so some of the human response that we're seeing, this pandemic fatigue shouldn't be unexpected. And yet, we never really anticipated in this way, because of the fact that we had not had this kind of an experience before. Now, if you add in that pandemic fatigue, people who really believe that this pandemic is real, but they've just grown tired of trying to isolate themselves or be distant from those in their world, they want to be in public places. And then you add in another category that I've called the group of pandemic anger.

These are individuals who don't believe that this pandemic is real, that in fact is politically motivated to discredit one or more government entities. In this case, they're not about to take any public health recommendations with any kind of meaningful activity that has a very, very important combination with pandemic fatigue to make for a large segment of our society, who are really not doing what it's going to take for us to get to that next spring when the

associated vaccines can truly deliver us from what's happening. So this is a real challenge.

And then finally, I would just add on is we're now in the season of fall and winter air, where indoor air is now what is much more commonly inhaled and exhaled into, and this is where we're seeing really increased transmission.

Margaret Flinter: Dr. Osterholm, President-elect Biden has said that addressing the pandemic is priority number one for his administration. He has created the COVID-19 Task Force bringing together a very distinguished group of experts and thought leaders, but the work of the Task Forces teams is impacted somewhat by this very vulnerable period where we're in where you may not have all the vital information that you need because this has not been shared as it normally would during a transition period. What are you expecting to see in the coming weeks and months, and what's the information in the data that you're waiting on that you think might be out there that you don't have access to?

Dr. Michael Osterholm: Well, as we are so well aware things can change on a dime and in fact in the last 24 hours we've had was called ascertainment. And so now, we expect over the course of the next several days to have really quite good access to not only the information on vaccines in general, how vaccine programs are planned in terms of rolling out the vaccines, or what other activities around testing and so forth are in place, and most importantly, the ability to talk to the senior scientists, the senior policymakers within the current administration. So I'm hopeful that the challenges that we previously had with regard to information will be eliminated.

Mark Masselli: You know, obviously, global pandemic, other nations all across the globe are impacted. There's a huge spike going on in the European continent. Some regions have really met the challenge locking down restricting sectors of their economy. And as you just mentioned, pandemic fatigue is a real issue everywhere, but if we're going to save lives, you say, it's pretty simple, people have to minimize their chances of swapping air. How have those interventions in Europe reduce the burden of disease on their healthcare system? Why do you think we need to think about a similar strategy here?

Dr. Michael Osterholm: Well, one of the challenges that we have, what is our goal, is it merely to keep the hospitals from being overrun, which is surely not an insignificant issue, are we trying to do what they've done in Asian countries, where they've actually driven this virus into such low levels, that they actually are able to get

back to pretty much normal life in many situations, and see major increases in economic activity. We've never really defined that. So number one, that's the first thing.

The Europeans too have not defined that but what they found themselves and slightly ahead of us was this big increase in cases after they had quite successfully suppressed virus activity for the better part of the April to August time period. Then what happened is it took off, it took off in a major way, and each of the different countries have had a little bit different approach to what they've done. Pretty much the Eastern European countries are still in big trouble, the Western European countries have at least flattened the curve, and for some of the countries have started to bring the numbers of new cases down.

What each government did was so different from what other governments did. Some were done in a regional level, some at a national level, some were really truly stay-at-home orders, others were just limiting a number of different social events. And so it's really hard to make any kind of conclusionary statements about what works and what doesn't. That's been part of the frustration of the public, is they are willing to sacrifice. Last spring, when we asked people to basically distance themselves to stay at home orders, many counties in the United States didn't have a single case of COVID-19. They kept asking, why are we doing this? That was a fair and legitimate question.

Even in places like the Twin Cities here, we would have Uncle Joe's Hardware Store, a small little neighborhood hardware store shut down for weeks and weeks, while the Big Box Hardware Store just six blocks down the road was allowed to stay open. And so we didn't have a plan. And now we're stuck with a population that's disillusioned about these kinds of activities. Finally, from a standpoint of economic impact, it's very real and right now, we have so many small businesses, particularly in the hospitality industry, that are just holding on by a thread. The owners are saying, why do I have to shut down without any kind of compensation? The waitress who works in that restaurant who no longer has a job, and she has two young kids at home, and she's trying to keep a roof over their head and food on the table. She too, is hurt.

We've not had any kind of associated financial support program in this latter part of the year like we had earlier in the year. So summarizing it, number one, we don't really know what it is we're trying to do yet. We just haven't defined it. I

think clearly limiting the absolute crisis we have in our hospital system right now should be job one. Job two, if we can get the number of cases down, trying to get us to a vaccine. At this point, we don't have magic answers, and no one has the perfect formula to say, do this or don't do that. We need more efforts to define that.

Margaret Flinter: Well, Dr. Osterholm, those of us on the frontlines of healthcare and public health are in a moment where we are simultaneously bracing for a very tough winter. We're kind of riding now the results of all the efforts that have gone into standing up massive testing infrastructure, but we're also simultaneously anticipating the arrival of vaccines a day that we have long looked forward to, and we're hoping all of that effort in standing up testing has taught us a lot about how to do what may be the greatest challenge in health care of our generation in terms of getting the vaccine out to people when it becomes available. Maybe share with our listeners, your thoughts on the vaccines. They all look to be effective but we know so many logistics to work out. What are you excited about and what are you concerned about as they begin to come into communities, and their real viability for mass distribution?

Dr. Michael Osterholm: We have to acknowledge that the scientists in our government, the policymakers in our government, that have put together Operation Warp Speed, an operation whose name I would have obviously picked a different name for, but nonetheless have to acknowledge it has been remarkable. It is in a sense Public Health Manhattan Project moment. At the same time though, a vaccine is nothing, it was just a vaccine. It has to be a vaccination to be successful.

Our initial data supports that they will be effective, at least in the first months after vaccination, and that this could have a tremendous impact on this pandemic. Some challenges that we have yet. Number one is we have more vaccines coming down the pike. We have to understand how we're going to study those. Some of those may be much friendlier in terms of their use, their storage capacity, and how we disseminate them. Some of them cause less reactions than some of the current vaccines might going to be hard to do randomized placebo controlled trials, when you have two vaccines licensed already at the 95% protection level.

Number two is, how do you evaluate them over time? Remember that the data we have right now is for the first two months after the second dose was received. But that should

not be a deterrent to getting the vaccine. It just means you have to study it and maybe we're going to have to be giving boosters down the road. Operation Warp Speed brought us vaccines, but will they bring us vaccinations? I think this is where we have fallen down and we need to really get up and catch up very quickly. That is how do we help the public understand what these vaccines are all about?

We have many people today that are highly skeptical of the safety of these vaccines, thinking that based on the name of what's happened and how this came through so quickly, that there are huge safety issues. And that's not just true for the general public. I've heard this over and over again from medical care for providers, who they themselves say, well, maybe I'll wait a little while. Well, right now, you know, we have almost 2000 people a day dying from this disease. We can't wait for 5, 6, 7 years to get better data. We are going to have to make some tough but really informed choices over the course of the next few weeks to decide, are these vaccines, what we need to do, and I'm confident they are the ones that we want. I can't wait to get in line to get mine when it's my turn.

But in the meantime, we need an extensive effort of outreach, to first of all to our medical care community so that they have the facts that they are not misguiding their patients by providing incomplete or not accurate information. Second of all, we have to reach out and involve the communities most impacted by this which are namely the black, indigenous and communities of color. We have to involve them and help them be the leaders in their own communities to get this vaccine out. I have been involved with some recent studies looking at the knowledge attitudes and perceptions of members of these communities, and in one area saw data showing that up to 75% of young black men from age 21 to 44 years of age were not planning on taking the vaccine, they don't want it, they believe it's not safe.

So I think that that ultimately the success that we're going to have or not have will come down not just to having the vaccine but equally important is how do we convince people to take it and then how do we deliver it. We do have challenges right now, at least the Pfizer vaccine that needs to be kept at -94 degrees Fahrenheit. The Moderna vaccine has less onerous requirements for refrigeration storage. But these are going to be challenges. But this again is such a huge public health challenge in of itself that we will have to rise to the occasion and we need to get as much of this vaccine in

people's arms as we possibly can.

Mark Masselli: We're speaking today with Dr. Michael Osterholm, Director of the Center for Infectious Disease Research and Policy at the University of Minnesota. He was recently named to the President-elect Biden's COVID-19 Task Force. I was thinking about efficacy and effectiveness – efficacy around the clinical trial and effectiveness. And then just thinking about what you were saying earlier about, if we had more data, we might have been able to have a better strategy for how to inform that Mom & Pop Store versus the Big Box, who's collecting all this and is trying to model it up. So we can actually, as a public health service provider, our frontline or local governments or state governments better data about how all this is transmitting the sort of ping pong effect, be interesting to know what's the body of work that's going on?

Dr. Michael Osterholm: Yeah, when we look at efficacy that is under the ideal conditions of a clinical trial, meaning that people are pre selected for participation. One part of the group gets a placebo, one gets the actual vaccine, no one knows which one it is, and through following carefully over time we're able to determine who has what we consider an outcome or in other words, an infection caused by the virus – in this case, the COVID-19 virus that we're trying to prevent from being transmitted to that person. Effectiveness date, on the other hand, is a bit more of a challenge. That is one where we're looking at, what is it doing in everyday life? What is happening when I go into the clinic to get my shot? How well do I follow up after, before I get my second shot? Effectiveness is really in the end, what we're looking for is how well does it work in everyday practice?

Mark Masselli: And then sort of the modeling on the pandemic itself, what do you believe will it look like---?

Dr. Michael Osterholm: At this point, I can't say that there is any one person collecting all this information. I have said over and over again, when this is over with, we need to assume that this was a public health emergency of a 747 crashing, and there were 747 black boxes on board. We need to take every one of them and examine them carefully, so we learn from this. We learned about what are the implications for messaging.

What do we know about the stockpiles of very important protective equipment that we needed to provide medical care? How do we plan on messaging to the public and what we're messaging about the issue of testing and how important that is to determine where the pandemic is going, and yet not

having it? What do we need for medical capacity in terms of not only the physical structures, the buildings, the beds, and so forth, but the trained personnel? You can't make new trained personnel in the middle of a pandemic. There are just a number of critical issues that have come to play here for the future that we're going to have to understand and just as strategically, as we plan for a potential war or for some kind of invasion, we have to look at infectious diseases in the same way, and we haven't.

One of the things we have to do is understand that the investment in public health today is strategic and tactical and has both not only human outcomes of life and death but also human outcomes of financial ruin. Both of those, I think, should motivate us to do a very different kind of planning for the future.

Margaret Flinter: But Dr. Osterholm, you've mentioned healthcare personnel a moment ago, and I remember back in the early days in New York City in particular, the lines of people cheering and clapping and applauding healthcare workers, which was beautiful and a great outpouring of support. But the tragic reality is that thousands of frontline healthcare workers have died in the line of duty caring for people with COVID. I understand that you've actually launched an initiative to raise money for these frontline healthcare heroes and their families who've lost their lives. Tell us more about your very important work in this area.

Dr. Michael Osterholm: Well, you know, through the course of the past 10 months, I've seen it front and center time and time again, the pain and suffering that healthcare workers, who are trying to do everything they can to save people like you and me, have had to go through. They themselves have been severely challenged with the kind of work conditions, the safety issues, but also in their own communities becoming exposed to the virus and what happens. We've now had over 1400 healthcare workers in this country who have died from COVID-19 and so I saw this group being largely unaddressed. While there are surely physicians who have been among these fallen warriors that may have the financial means to leave their families well off, there are many in the healthcare work setting who do not have that ability.

The janitors, the nurses' assistants, even the nurses, even young physicians, who have great debt, and so I thought, hey I have a platform, so I began collaborating with the St. Paul Minnesota Foundation, one of the largest community

Foundations in the country. We reached out to others Brave at Heart, Scholarship America, and collectively formed this group to actually provide resources for fallen healthcare workers' families, as well as not only immediate financial support where they need it but also to set up college scholarships for the children of every one of these fallen healthcare workers, so that they can go to college, whether it's next year, it's 18 years from now.

This fund, the FrontlineFamiliesFund-all one word-dot org – FrontlineFamiliesFund.org, and we are hard to make sure that these families are taken care of. We hope everyone will consider donating, of course, it's tax deductible, and we appreciate any help we can get with us.

Mark Masselli: That is great. Just I think that's so classic of American standing up and doing the right thing, but it is unconscionable that our federal government has not come up with the relief dollars that are needed. Tens of millions of Americans are impacted, pass those frontline workers average day-to-day essential workers. You talked about it early black indigenous people of color, but just in terms of the economic lifeblood that needs to flow through our country so that people do not have further despair. Tell us what your prescription is about what the federal government needs to do in terms of a stimulus plan now and why the logger jam?

Dr. Michael Osterholm: Well, you know, need I say these are the reality of the politics of 2020. But the bottom line message is, is that taking care of these individuals so adversely impacted by this pandemic is not just being altruistic, it is smart from an economy standpoint. As we watch what's happening right now, with small businesses barely hanging on, if not going under, economically the modeling shows clearly it is better to invest in them and keep them going and to provide the support that doesn't cause them to go to bankruptcy.

The same thing is true with the workers, those people who have been adversely impacted by this, and not just in the private sector. When we look at city and state governments today, we're watching the potential layoff of many, many thousands of firemen, police, etc because of the inadequacies of support in those government bodies. We need to get the resources from Washington and see this as an investment not a handout, to keep our economy going to make certain that as we are able to come back after vaccines are introduced we've not wiped out an entire segment of small and medium sized businesses in this country.

I can just tell you working with the economists at the Federal Reserve Bank and elsewhere, they see the benefit of this. This is a scary time it's a scary time for all of us. Why are we adding on to that when we're asking people to do things to reduce the likelihood of transmission and not helping them along with it?

If you look at all the other countries that have successfully contained those virus, limited its transmission, the one overriding factor you'll see time and time again, is there was government support there to do that. We still have a number of months to go before a vaccine will be a reality in many of our communities so we have to deal with this now. So we're hopeful that Congress and this administration can get together very shortly and provide that kind of relief that I can tell you, every governor in this country would welcome very much. And of course, all the citizens would too.

Margaret Flinter: We've been speaking today with Dr. Michael Osterholm, newly appointed member of President-elect Joe Biden's COVID-19 Task Force, and the Director of the Center for Infectious Disease Research and Policy at the University of Minnesota. You can learn more about his vitally important work by going to www.cidrap.umn.edu or follow him on Twitter @mtosterholm. Dr. Osterholm, we want to thank you so much for your decades of scientific contributions, for helping us understand what we are faced with and for rising to the occasion to help our country battle COVID-19 and of course for joining us again today on Conversations on Health Care.

Dr. Michael Osterholm: Thank you very, very much for having me. I appreciate it.

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Mark Masselli: At Conversations on Health Care we want our audience to be truly in the know when it comes to the facts about healthcare reform and policy. Lori Robertson is an award winning journalist and Managing Editor of FactCheck.org, a nonpartisan, nonprofit consumer advocate for voters that aim to reduce the level of deception in U.S. Politics. Lori, what have you got for us this week?

Lori Robertson: Late in the Presidential Campaign, President Donald Trump claimed that state COVID-19 restrictions are a partisan ploy with the Democratic governors purposely keeping their states closed while Republican governors are opening them, but that doesn't square with the facts. For instance, in Bullhead City, Arizona, just across the border from Nevada, Trump wrongly contrasted the reopening actions of both states. In that speech

on October 28, the President said, “In Arizona you've opened up but Nevada, get your governor to open up your state please”. So by Trump's telling Arizona, which is run by Republican Governor Doug Ducey is opened up but Nevada run by Democratic Governor Steve Sisolak is not. But the reality is both states have very similar restrictions.

In late October in both Arizona and Nevada bars, restaurants, movie theaters and gyms were all open, but use was capped at 50% of capacity. Jennifer Tolbert, Director of State Health Reform at the Kaiser Family Foundation, which has been tracking policy actions taken in states in response to the pandemic confirmed to us that the two states were in similar phases of reopening. In fact, Arizona has slightly tighter restrictions in some areas. For example, large gatherings are limited to 50 people in Arizona, but it is 250 in Nevada. Nevada is stricter than Arizona in one respect. Nevada has a statewide facemask mandate requiring people to wear them in public spaces when they come into close contact with others such as on public transportation or in a business. Arizona does not have such a mandate and leaves it up to local governments to impose them if they want.

That's my fact check for this week. I'm Lori Robertson, Managing Editor of FactCheck.org.

Margaret Flinter: FactCheck.org is committed to factual accuracy from the country's major political players and is a project of the Annenberg Public Policy Center at the University of Pennsylvania. If you have a fact that you'd like checked e-mail us at www.chcradio.com, we'll have FactCheck.org's Lori Robertson check it out for you here on Conversations on Health Care.

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Margaret Flinter: Each week Conversations highlights a bright idea about how to make wellness a part of our communities and everyday lives. While the world grapples with a global pandemic, public health experts have been simultaneously battling and other ongoing health threat. Mosquitoes are considered one of the deadliest animals on earth, leading to hundreds of millions of illnesses and some 2.7 million deaths per year globally. Diseases such as malaria, dengue fever, and Zika are on the rise.

Dr. Scott O’Neill: There is one mosquito called Aedes Aegypti that transmits a range of different viruses to people. They include viruses like yellow fever, dengue fever, chikungunya, Zika, and the

consequences can be very dire from a loss of life through to crippling social and economic cost.

Margaret Flinter: Dr. Scott O'Neill is the director of the World Mosquito Program, which has developed an innovative approach to eradicating the threat.

Dr. Scott O'Neill: I was particularly interested in this bacterium called Wolbachia. This bacteria is present in up to 50% of insects naturally, but not this one mosquito that transmits all these viruses. When we put the bacterium into the mosquito the viruses couldn't grow any longer in the mosquito. So we're seeding populations of mosquitoes with our own mosquitoes that contain Wolbachia. We are able to spread the mosquitoes across very large areas very quickly. Once the mosquitoes have it they're protected from being able to transmit viruses. When they're protected, the humans are protected as well.

Margaret Flinter: Dr. O'Neill's team released the genetically modified mosquitoes into a targeted area, and the results showed a dramatic reduction in human infections.

Dr. Scott O'Neill: In Northern Australia we deployed the Wolbachia over quite large areas, entire cities, and we've seen essentially a complete elimination, 96% reduction in dengue in those cities. We believe if we can scale this intervention across entire cities, we can completely prevent the transmission of diseases like dengue, chikungunya, and Zika.

Margaret Flinter: The World Mosquito Program is one of the six finalists in the MacArthur Foundation's 100&Change competition, which awards a $100 million grant to innovative public health interventions.

Dr. Scott O'Neill: We're hoping that over the next five years, we could bring this technology to protect 75 to even 100 million people. We would hope that within 10 years we could bring this intervention to 500 million people.

Margaret Flinter: The World Mosquito Program is an effective targeted genetic engineering approach to eradicating the threat of deadly mosquito borne pathogens, leading to a dramatic reduction in harm to public health. Now, that's a bright idea.

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Marianne O'Hare: You've been listening to Conversations on Health Care.

Mark Masselli: I'm Mark Masselli.

Margaret Flinter: And I'm Margaret Flinter.

Dr. Michael Osterholm

Mark Masselli: Peace and Health.

Marianne O'Hare: Conversations on Health Care is recorded at WESU at Wesleyan University, streaming live at www.chcradio.com, iTunes, or wherever you listen to podcasts. If you have comments, please e-mail us at chcradio@chc1.com, or find us on Facebook or Twitter. We love hearing from you. This show is brought to you by the Community Health Center.

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