Mark Masselli (00:04)
Our guests rely on their extensive, extensive experience and research about pandemics and write that you never know when a Black Swan event is going to turn into a red alert.

Michael Osterholm (00:14)
It's, fair to say that we're in free fall. I've never in my 50 years in public health experience anything like this in terms of the threat to good public health.

Margaret Flinter (00:24)
Joining us today are Dr. Michael Osterholm, one of the world's leading infectious disease experts, and Mark Olshaker, an Emmy award-winning documentary filmmaker. His previous book with Dr. Osterholm was a New York Times bestseller.

Mark Olshaker (00:38)
Unfortunately, it's getting progressively frightening. I mean, this really is a not if, but when situation.

Margaret (00:45)
This is conversations on Healthcare.

Mark M. (00:58)
Well, Dr. Osterholm, welcome back to Conversations on Healthcare.

Michael (01:03)
Thank you, mark and Margaret. It's always good to be with you.

Mark M. (01:05)
And Mark, thank you for joining us for the first time.

Mark O. (01:08)
Thank, thank you for having us both.

Mark M. (01:10)
You know, you have co-authored a new book and well-focused on that in a minute. but let's, let's start with Dr. Osterholm. The, the Centers for Disease Control and Prevention has just announced a vaccine skeptic to head. Its COVID-19 working group. His name is Retsef Levi from MIT. Wondering if you could give, our listeners your reaction?

Michael (01:33)
Well, I think Mark and Margaret both. It's, fair to say that we're in free fall. I've never in my 50 years in public health experienced anything like this in terms of the threat to good public health. this particular group under, Mr. Kennedy's leadership really is doing everything they can to take away vaccines from the public, to destroy any confidence that we have in them. And this is obviously an issue for today, where we are still talking about, diseases like COVID, influenza and so forth, but also it's all about the future and preparing for the next pandemic, which is what our book is about. And, that's why I say over and over again that, these are dangerous decisions that have been made, and we will pay a big price for them as we are now in preparedness free fall.

Mark O. (02:21)
Yeah, I think, I think what Mike says is absolutely true. When, when we set out to write this book, in the midst of the COVID Pandemic, we wanted to prepare people for what they could expect from what we called the big one. And COVID was definitely not the big one. we set out, a scenario of what it would be like. we thought we had descriptions, we had suggestions, we had takeaways. What we didn't realize at the time was that our book would kind of be an absolute counterpoint to what is going on today, what Mike calls free fall. it never occurred to us that we would say, well, you know, what you read in our book, that's not what's happening, but that's what needs to happen.

Margaret (03:08)
Well, Dr. Osterholm, you recently said, I think that, I don't think I've seen a more dangerous decision in public health in 50 years, in the business. That's a pretty big statement. What's on your mind that leads you to say that this is the most dangerous decision at this moment in time? Even looking back over the last 50 years, what are you thinking is likely to happen from it?

Michael (03:31)
Without any doubt, one of the most, if maybe not the most important tool in public health has been vaccines. The millions and millions of lives saved over the last, century from vaccines has been just simply remarkable. Well, now we have a Secretary of Health Human Services that is in every way an anti-vaccine advocate. Someone who has talked about how these vaccines, poison people, talked about the fact that, those individuals who are promoting vaccines are basically criminals. When you understand that, you realize that for the first time in all of our public health careers, we are seeing someone who is whole. Their whole point is to basically take the vaccine enterprise down and out. And it's not based on science. You know, last week I was asked repeatedly by the media after the American Academy of Pediatrics came out with their recommendations for vaccination for COVID, which were counter to what the, ACIP and, HHF said. And I, said to the media folks, I said, you know, you're getting the questions wrong here. You shouldn't be asking about what was different about AAP. You should be asking yourself why, for every of all the public health organizations in the world, of all the governments in the world who are all on the same page, how could HHS be so far off? What's wrong with them? And it's because we have a zealot who basically is all about trying to take vaccines away from us. And so that is dangerous. That is just out now dangerous. It's not based on science. It's not even based on a political philosophy. It's just based on the idea that because he can take these vaccines down, he's going to.

Mark M. (05:11)
Well, let me just pull the thread on this, because it seems to be about the lack of public trust. I know the director of the NIH recently wrote in the Washington Post, an, an article, and he listed all of the issues that he had with the mRNA vaccine. And I think leading that list might have been public trust. What's happened, in the society that's brought us to this place where science has been sort of pushed off to the side?

Michael (05:40)
Well, I think, Mark, I'm not sure science has been pushed off to the side for the majority of people. Surely it has for some in a big way. But when you actually survey the public and look at who do they trust, what do they trust, there's still a substantial trust in public health. the challenge we have is, is that when you have a megaphone the size of one that the secretary now has, it does start to basically drown out science as you've just described it. But I think we have to continue to remember that the science is on our side. The Vaccine Integrity Project, an operation that we created within CIDRAP, has actually been an effort to evaluate all the information that's come forward on vaccines for COVID influenza and RSV since the last time the ACIP evaluated them. We presented those data in public last week. it was an exhaustive study looking at over 17,000 abstracts, then taking the papers from there using a very detailed protocol approach. And we reaffirmed over and over again what a CIP had affirmed prior to this time. So, you know, for some of the vaccines, it was two years ago since it looked at, but based on what they had looked at before, our results were consistent. The science is there. You know, I find it very,

Mark (06:57)
But, but I, I just wanna push back on the trust because you look at the polls, 87% of Democrats find COVID vaccines safe or somewhat safe. 30% of Republicans, say the same thing. So, so there's, there's some misalignment here. I'm wondering if, if you've got…

Michael (07:14)
That's where I'm going next. Okay. Because what I wanted to point out was last week when Mr. Kennedy announced why certain vaccines wouldn't be available, he basically said, because they were not safe relative to the benefits. Then you had the director of the NIH coming out, a week later indicating, no, actually it was because of the fact that people didn't trust the vaccines. But when you actually go into that trust issue and look at it carefully, what you see is in fact that a lot of the distrust has been sowed by the very people who are supposed to be promoting vaccines. That does cut big, and particularly in Republican circles. And that's an unfortunate commentary when you think about in the COVID pandemic, the number of excess deaths that occurred among red states, and specifically people who are registered Republicans versus others. so I don't disagree about the trust, but I think for a majority of people, they're waiting for and wanting the kind of accurate information that says, these vaccines can still save lives. Think about this. Last year, 265 kids in this country died from influenza and needlessly in the sense of what vaccines could have done to prevent those illnesses. We do have a lot of work to do, but in fact, I think the, the bottom-line messages, there still is that opportunity to provide that work.

Mark O. (08:28)
Mark, I think you bring up a very important point, which was when we published our last book, deadliest Enemy, our War Against Killer Germs in 2017. I think we got a lot of things right. In fact, our chapter on Coronavirus was called SARS and MERS Harbinger of Things to Come. The one thing we, and I, and I stand by

almost everything we wrote in the book today, the one thing we got wrong and we got wrong by omission rather than commission, was it never occurred to us that in the case of a major public health crisis, a pandemic, if you will, that health would become politicized. It never occurred to us that people wouldn't do everything they could to follow the latest science and do what they could to save their own families, to save lives and, save their communities.

Margaret (09:18)
Well, I, I wanna pick up on that thread, because I think one of the things I've always counted on is that parents will try and do right by their children in terms of protecting them. And school vaccines and immunizations have been a big part of this, but…

Mark O. (09:30)
Margaret, Lemme just interrupt to say that we, we write about the, Salk and Saban polio vaccines, which came out in the, 19, early 19 and mid 1950s, and parents lined up around the block overnight to get their children vaccinated against this scourge. I think one of the things that Mike has been dealing with in, in his work all this time is the, the challenges of success. Vaccines have been so successful in preventing, horrible diseases that people have started taking them for granted. And, you know, just, just criticizing around the edges, well, it's not as good as we wanted it to be, or it's not, you know, we can still transmit and things like that, but we've taken for granted how much vaccines have changed our lives.

Margaret (10:23)
Well, I think the, part of that is kind of the, the, the line that's been drawn around schools and vaccines and children having to get those vaccines, right? The blue form is kind of like ingrained in my brain. Have to demonstrate that you've had all your, vaccines, but we're below the target rate of 95%. I understand. And, and have been for a couple of years, and last year it actually was at 93%. And I wonder, what your take is as you look across the country, about schools, what they're doing to try and maintain that vaccine rate and, and the counterpoint some of the pressure that's coming at them, as we've seen, federally for schools that have only very narrow exemptions and otherwise, absolutely require the vaccines.

Michael (11:11)
Yeah. Yeah. Well, first of all, schools are not a monolithic entity. They're very, very different depending on the community, the population that goes to those schools, and their access to healthcare all make for very different, for example, in Minnesota, we unfortunately are below that, line of, we'd like to see for vaccination rates for what we call herd immunity activity around measles. And about 87% of our school children are vaccinated coming into schools, but we have schools here in the Twin Cities metropolitan area where only 40% of the kids are vaccinated. So it's kind of like saying, your head's in the freezer, your feet are in the oven, and average your temperature's just right. And so what we have to also understand is how do we reach out to those, sources of, of, illness in the community that are coming from, schools with only 40% of the people vaccinated? And that's a huge challenge. We can't ignore that. We don't understand completely why these occur, relative to social media cultural issues, but it's, it is a huge challenge.

Mark M. (12:12)
Well, our head's been in the oven, in the refrigerator market. We're in 150 schools. Schools just started to launch here, and we see that wide disparity all across our state, as we deliver care. But Dr. Ostro, you've recently launched something that might really be a, integral to, improving the situation, around vaccine acceptance is called the Vaccine Integrity Project. I'm wondering if you could describe that work.

Michael (12:38)
Yeah. Well, again, as I, I noted, previously this was an effort to basically bring up to date the scientific conclusions about vaccines or effectiveness, their safety availability, based on what the A CIP used to do, the advisory community immunization practices, and they used to provide this information to the major medical societies that would then in turn make recommendations also. So vaccinations, so AA, American Academy Pediatrics would do that for children. The, ACOG OBGYN group would do that for pregnant women. the Infectious Society of America would do it for adults and particularly immune compromised individuals. And so all of these, medical societies have played a huge role in count the recommendations. Now, they don't have the data to do that because the A CIP no longer provides that comprehensive review and update. So we did that. We evaluated over 17,000 abstract, numerous papers in a very systematic way, even measuring potential bias for or against, effectiveness and presented those data to the societies for their use. We're not in ourselves making recommendations, we're just trying to provide the kind of homework that is a very heavy lift for these organizations, so that can support good science-based approaches. and I think that's when you, when we look at

what we're trying to do right now with our book, it's the same thing. We're just trying to basically provide the kind of information that can be the tool to say, what do we need to do for the future to protect ourselves against, for example, a big one.

Margaret (14:15)
Well, Mark, you and, Dr. Osterholm previously wrote “Deadliest Enemy”, about killer germs. That was a page turner. but the new book is just out, and it's called The Big One, and it describes a coronavirus more infectious and deadlier than COVID. Tell us about the scenario that you laid out in that book.

Mark O. (14:35)
Well, first of all…

Michael (14:36)
Can I just add Mark, I wanna just add a context to this, Margaret. At the time that we wrote this chapter, we anticipated that what we were later able to find would happen. And what do I mean? Well, when you look at SARS and MERS, these were two viruses in 2003 with SARS 2012 emerge with MERS. And in those instances, fortunately, they were not that highly infectious. We did have some super spreaders that caused some large concentrations of cases in very select areas, but it was a, we were able to bring those under control using good public health approaches. But what was notable is anywhere from 15 to 35% of the people who got one of those two viruses died. Well along comes COVID, where it's much more highly infectious, spreading like influenza. And in the top of that, though, the only about one to one and a half percent of the people died from this. What would happen if you kind of had a mixture of both SARS, MERS and COVID, and now we've actually uncovered viruses in the last six months in China in caves with baths, where in fact, the receptor sites for the virus getting into the human lung cell is very much akin to what we see with COVID. Meaning it could be highly infectious, but having the same kind of genetic, component to it that is very much like what we saw with SARS and MERS in terms of ability to cause serious illness. Imagine if COVID, instead of killing one point a half percent of the people killed 35% of the people, what would that be like? That's not science fiction anymore. That is not somebody just grandstanding that's saying, are we ready for this or not? And of course, we're not.

Mark O. (16:15)
You know, Margaret, we're not futurists and we don't claim to be. We just look at the evidence and see what's there. What we did is we started out by saying, alright, what's the worst public health disaster that we can remember? Certainly the 1918 flu. And then when we started doing research, we realized, you know, we're no better off today to combat something like this than we were a hundred odd years ago. We've got, four or five times that world's population. We've got airplanes that can get anywhere in the world in, in, in a few hours. We've got a billion international crossings a year. we're cutting back on natural reservoirs of, forests and, things like that. And, we've got huge, impoverished mega cities with no, with, with no, sanitation or, or health supplies. And we realized this is a big problem. And if something like that were to happen again, what would it be like? So we started out with that scenario, and we used it as a takeoff point for each of the key points we wanted to get across, whether it's how the viruses work, what viruses are likely to cause such a pandemic. how do you communicate properly to, to get the science across in a way that's both realistic but also understandable. How do you do, how do you deal with public policy? Do mandates work or not work? And under what circumstances? So that's what we tried to come, come up with in this book. And, unfortunately, it's getting progressively frightening. I mean, this really is a, not if, but when situation. And the point that we've tried to get across over and over again is arguably these microbes prevent, present a far greater threat to our way of life and survival than any human enemy, or opponent possibly could. And yet we don't treat them the same way. We don't treat our public health establishment the way we treat our defense establishment. if we did, we would be much better prepared. We need a military model for developing the armamentarium that we need to fight. What will inevitably happen? It may be next year, it may not be for 10 or 20 years, but it will happen. And not…

Mark M. (18:40)
Though I, though I will say…

Mark O. (18:41)
Mike says, we're going in the wrong direction.

Mark M. (18:42)
Right. I think our listeners, Margaret, would be asking them to have our guests tell us when's it gonna happen and how do I prepare, right? So, you've answered, answered the sort of first one. We, we don't know, but, is

there any sort of guess here that might help 'em and, and can an individual really be prepared? Or is this a really societal response that's needed?

Michael (19:04)
Well, let me give you the, I think the, the two point answer on this, and that is the fact that the one tool that will help us get through a pandemic with most impact is an effective vaccine that's readily available at the time that the pandemic emerges. right now, if we were to see a major influenza pandemic emerge, we'd be in big trouble because in fact, our global capacity to make influenza vaccine is only enough vaccine in about a year to 15 months to vaccinate one quarter of the world's population. And that's largely because we're still using rated chicken eggs to grow the virus in much like we did 50 years ago. Well, mRNA technology really offered what we believe was a really important opportunity to use that vaccine against influenza. And that's what this research that was recently cut out was all about, was to make certain that we had, flu vaccine, manufacturing capacity, which could have given us enough vaccine likely even within a year for the whole world. That whole program just got scrubbed, you know, right now we took away the very best tool that we possibly had for an influenza pandemic. So tell me now, what are all the public going to do? If we had an influenza pandemic, what could we tell 'em would be coming to save them? Now, there'll be other countries in the world that will continue to work on mRNA technology. They will have vaccines. They will be at the front of the line. We will now be at the back of the line, unlike what happened in 2020. And this is going to be, I think, a really major legacy issue for whoever's responsible for taking down the kind of research and manufacturing, quality activities for the vaccine.

Mark M. (20:46)
You have Mr. Levi who's saying, you know, let's, let's stop the mRNA vaccine now. Right. Didn't you just publish something recently about, pulling, stopping, its usage?

Michael (20:59)
Yeah. You know, mark, this is again, as an example of if you and I were on a jet plane about to take off and there happened to be a hundred, mechanics right there by the plane. And you and I ask the mechanics, “Is this plane safe to fly from this place to someplace else?” And 97 of the hundred said, “No, you wouldn't get me on that plane.” Two of 'em said, “Well, I don't know.” And the third one of the hundred said, “Absolutely, I'd fly on this. No problem.” Would you fly on that plane? Well, what we're doing is we're letting that one mechanic dictate what we think about vaccines in this country, because he or she says this, no, the 97 of the mechanics say, don't get on that plane. That's what public health is saying, not just in the United States, but around the world. We are so off base with what we're dealing with. This is not science, it's science fiction that they're dealing with. And we just have to understand that. And that's why we have to continue to do what we can to assure that these vaccines are available. We will pay a price, you know, as the old oil frame commercial of a couple of decades once said, you know, you can pay me now, or you'll pay me later, and we will pay a hell of a price later if we allow this kind of activity taking away our vaccine research and development and manufacturing, before a pandemic.

Margaret (22:16)
Well, maybe, you both could, make it more clear to our listeners, why people are being stopped in their tracks. I certainly understand the government's approach, but we have a large private pharmaceutical industry in the United States. We know that if we think back to 2020 in March, we were calling our staff together to say, what are we gonna do? By April, we had testing clinics up, and in December of 2020, the first vaccines arrived, and we were at the beginning of the effort to control it. Those vaccines were not produced at NIH, they were produced in the private pharmaceutical labs. Why or how can the private pharmaceutical industry step up to continue the research, and to have the means of production of the next vaccines that we need? We seem to be almost disproportionately focused, given the reality that we currently have….

Michael (23:14)
What, what company is gonna put forth billions of dollars to build capacity that might never get used, and therefore basically be a totally lost investment. This is where government partnerships have always been very important. and, and you can say, well, wouldn't it be great if they'd take these issues on, you know, they're not charities, not that they don't make lots of money, not that they surely wouldn't profit, by selling vaccines during a pandemic, but they're not gonna invest in this, this is the reality of it. We have to be prepared to invest in what will protect the public, and that's gonna mean having capacity to manufacture these vaccines. But you can't even deal with that until you have the research development done to actually, you know, show that these vaccines can be effective, that they are safe. And that's what, right now we're just trying to do that much of it. And that's what's been cut off.

Mark O. (24:07)
Imagine, imagine if, a company like, General Electric said, alright, let's build a fleet of submarines and then we'll try to sell them to the government, because at some point they're gonna need them. It doesn't work that way. You can't do it that way. you don't build an aircraft carrier, for $3 billion and then say, all right, maybe we'll have a government, take it over. You have to have this collaboration between government and private industry to make it work. And they both have to be focused on the same vision. And right now, we're not.

Mark M. (24:39)
Mark, let's get back to the book, which covers how airborne viruses spread and why we still seem to get this wrong. What exactly are we misunderstanding? How is artificial intelligence? We have to get that in every show that we're in, adding to this confusion.

Mark O. (24:56)
Well, first of all, from what I understand about artificial intelligence, which is limited, it really does tries to please. So it will give you the answers you are looking for. And, from my experience over many years of writing, if you look hard enough, you will get the answers you seek, whether they're the right answers or the wrong answers. but, you know, one of the, one of the problems is that, we're just not, focused on, on this, and we just, we just don't, we just don't get it.

Margaret (25:29)
Well, it's hard to guess also with this, the, the split along political parties about who believes that the vaccines work and who believe, the vaccines don't. But I think we still, have to, come back to the fact that we know that a future pandemic is around some corner. and we simply aren't gonna have the means of supply available to protect people. But I, if we can, I'd like to move off COVID just for one moment. 'cause, Michael, I've been really interested to ask you this question for a while. Nobody talks about rubella, nobody, everybody talks about the measles vaccine and how it might harm your children, and nobody talks about rubella, and the media doesn't seem to have any interest in revisiting scenes from the not-too-distant past right. Scenes from the 1960s, probably for the most recent rubella epidemic. Where, where is the sort of consciousness about the media bringing forth the kind of inevitability of the return of these pandemics with such profound consequences for people is our, is our, our amnesia, really, that short term?

Michael (26:37)
Well, you know, first of all, let me just maybe make a, a minor, addition to your question here and say, I've been talking about it a lot. I, I never talk about measles without also talking about the potential for rubella. And we have seen rubella cases show up in Europe, where there are a higher number of individuals not vaccinated than we have here in the United States. And so this is a serious challenge. And anyone who remembers German measles rubella and the impact that that had on the unborn child is absolutely stunningly remarkable and scary. So we do have to understand that. And, and I think that it's not just about measles. Measles is also a highly infectious virus, which makes it more likely to transmit, but if you don't get a measles shot, you're not getting a, rubella shot either or a mump shot. Okay. Because remember, it's MMR, and so all three of 'em are there. I think the one thing we also wanna emphasize, though, as bad as things are in this country with regard to vaccines, we're in better shape than a lot of places. Think of this, we're now at a little over 1200 cases of measles this year in the United States with a population of 140 million. Canada, which only has 40 million, is over 3,200 cases of measles this year. So this is a, a global issue of importance. And of course, measles virus will jump across the border and in one plane ride. So it is important what happens around the world, and we have our hands full right now, and, and we have to keep our eye on rubella as well as measles. It's a big issue.

Mark M. (28:04)
Let me get a last question. You guys are a dynamic duo. Tell us what the chemistry is that makes all these books you're writing so compelling.

Mark O. (28:11)
Well, I think what we, what we realized was, what we're writing about is high technological drama, and we wanted to keep it that way. so, you know, from my background as a novelist and a journalist, the question, what happens next is really important. And that's what we try to, convey. So this really is a, an addition to a dire warning. This is also a thriller and a mystery story. And, we used all of Mike's talents and, and experience to make that work.

Michael (28:45)
And I can fortunately say that I get the opportunity to work with my twin brother of a different mother. And that surely has also been a wonderful, opportunity.

Margaret (28:54)
Well, that will get you through some difficult times, based on the material that you're working with. But we want to thank you, Dr. Osterholm, and Mark Olshaker, for joining us. Thank you to our audience for being here. And just a reminder, subscribe to our videos on YouTube, find us on Facebook and X, but please also share your thoughts and comments about this program and its incredibly important content. Take care everybody, and be well.