

One World, One Health Podcast
Episode 3, Season 1 - Transcript
Guest: Dr. Ali Khan

Monkeypox - Stopping the Spread and the Stigma

Maggie Fox:

Hello and Welcome to One World, One Health with the latest ideas to improve the health of our planet and its people. I'm Maggie Fox.

Planet Earth faces many challenges: pollution, climate change, and new and reemerging infectious diseases like COVID. This podcast is brought to you by the One Health Trust with bite sized insights into ways to help.

In this episode, we're talking to Dr. Ali Khan, who's the Dean of the College of Public Health at the University of Nebraska Medical Center. He's an epidemiologist who spent 20 years at the US Centers for Disease Control and Prevention, most recently heading public health preparedness and response operations there. We're talking to Dr. Khan about monkeypox, which the World Health Organization has declared a global health emergency.

Dr. Khan, why are we suddenly seeing monkeypox cases around the world? Have they been cooking along quietly and we're only just seeing them or did something happen?

Ali Khan:

Both, actually. So monkeypox (traditional monkeypox) is a zoonotic disease, a disease transmitted from animals in central and western Africa. We've known about this disease for about 50 years or so, and actually know a lot about traditional monkeypox because of the concern that it could potentially have replaced smallpox, since we've eradicated smallpox.

The disease occurs generally amongst individuals who hunt and eat squirrels, and sometimes their family members. Relatively stable, has been increasing over the last few years had smallpox vaccination, which is protective, in natural immunity and vaccine induced immunity has declined.

What we're seeing now is actually- I tend to call it a new variant, monkey pox- and this is monkeypox that's not originally transmitted from an animal, but is now person to person transmitted, generally by close skin contact. When we say intimate contact, that's what we're talking about and generally sex, which is close skin contact. This disease may well have been

sort of percolating along for the last four to five years starting in Nigeria, where they reported an outbreak amongst the men who have sex with men and then with occasional cases coming into the rest of the world.

It looks like this spring, some cases came up into Europe and then through a couple of festivals and bathhouses, rapidly disseminated since the spring to 77 additional countries at this point. So percolating for five years and there's this rapid expansion that occurred.

Maggie Fox:

Could the virus have changed? Or is human behavior a bigger factor?

Ali Khan:

The answer to that one is both. Both human behaviors have changed. So when we first learned about monkeypox, as I said, it was the traditional monkeypox from animals, and then occasionally, usually family members who take care of people who are infected, would be sort of the normal thing that we saw in monkeypox.

In this new variant, monkeypox, it's still skin to skin close contact, but that includes sex, and as individuals, especially gay and bisexual men have gotten milder disease, it has been spreading within this community. So there's been a change in behavior.

But if you look at the virus over the last four to five years, there's also been changes in the virus at the same time. So it's a combination of the two that likely has led to this new variant of monkeypox over the last four to five years being transmitted within our communities globally.

Maggie Fox:

How is Monkeypox related to smallpox?

Ali Khan:

So monkeypox and smallpox are both large DNA viruses. So the same type of virus and vaccination against smallpox protects against monkeypox. They're very different diseases, in terms of monkeypox is not as severe as smallpox happened to be and even now within the types of monkeypox there's different types of monkeypox that are very mild and not so mild.

Maggie Fox:

If you have been vaccinated against smallpox, you are partly protected against monkeypox. How does that work?

Ali Khan:

I think we need to remember that the last people vaccinated against smallpox in the United States is 1972. That's 50 years ago, and even earlier than that for people who may well have been infected by smallpox unless they were infected abroad.

So yeah, there may well be some mild residual immunity from that vaccination 50 years ago but that's not something I would bet on, and I would make sure that I'm taking the appropriate precautions if I'm a high risk individual in high risk situations for getting infected and get vaccinated if the opportunity is available.

Maggie Fox:

What does this outbreak tell us about the need to be aware of diseases all over the world?

Ali Khan:

This outbreak tells us the same thing that the COVID outbreak taught us is that we're always at risk for the next emerging infection, from a combination of human behaviors and viral changes we saw with COVID. We see this now with monkeypox. We will see it with the next pandemic, which may well be another Coronavirus that spreads by a respiratory route and may be a vector borne disease like Zika, which we were talking about a few years ago, or very likely, it's the next novel influenza which we have seen periodically, which poses probably the greatest risk for human health and all of these being zoonotic or somehow related to animals.

Maggie Fox:

How can the world in general help improve surveillance in response to viruses and other pathogens that may be causing localized problems before they cause more of a widespread issue?

Ali Khan:

The secret to prevention and control really is local level preparedness. Because a disease anywhere is a disease everywhere. This should be so apparent at this point, with, you know, a disease in a Wuhan market, leading to a global pandemic, or West African cases of monkeypox now leading again to global pandemic of this disease. It's a lot milder than COVID, which is why I never compare them. But the point being that unless we have good local abilities, to understand what's going on in the community. So that means good public health systems, and a trained workforce that can recognize and immediately respond and trigger that alert to a national and a global level for additional resources as needed. Until that's done in every country, we will always be at risk of some country being a source of the next pandemic.

I like to think about preparing and responding as sort of what are the three critical things we need that we need lots of things, but the core things we need is good data and science. And monkeypox is a great example in the United States where we don't have good data, we still

have no true good sense of how much disease is being transmitted in the community. We don't have good data on who was vaccinated, how to link data that doesn't exist on who's been vaccinated, who's been tested. So we have very poor data systems. And even when they're better than in some states and others, there's really no mechanism or requirement to report them to a federal level to connect all that data together and help the United States as a whole know what's going on.

So you need data, which I call the lifeblood of public health. You need trust. You need trust in public health science. You need trust in public health practitioners and that has been undermined by the COVID pandemic. And then finally, you need strong political support for public health. And those are three critical components to start off with before you then get into what are the data systems that you need? What is the workforce development that you need to make sure that every community in America is ready for the next pandemic?

Maggie Fox:

Dr. Khan? Why is it important to not stigmatize the victims of monkeypox ?

Ali Khan:

So we always need to be very careful when we label groups as sources of infection, instead of remembering that it's behaviors that get you infected, and the virus doesn't care what your identity happens to be. And in this specific case, the long lines of individuals getting vaccinated or trying to get vaccinated is clear proof of how responsible the gay and bisexual community has been to make sure they educate themselves and they protect themselves and they protect the wider community. And this goes not just to monkeypox in this case. It also goes to, for example, vaccination of minority communities.

You need to be careful to say, you know what, it's not, you know, a religious, small religious community that's the source of the problem. It's individuals within that community, who have a different belief system who are not getting vaccinated. And to be honest with you, I put that on us as public health practitioners to say, we are not doing a good job of improving vaccine confidence and educating that community as opposed to blaming or stigmatizing that community.

So I think we need to own that a little bit more of how do we do better in spreading our message, as opposed to the death merchants out there who are more than glad for profit or power to tell people that vaccines don't work, masks don't work, and also sorts of other nonsense about what doesn't work or god forbid what does work. You know?, "hello, I need my hydroxychloroquine or ivermectin."

Maggie Fox:

Then, Dr. Khan, what have we missed? What else should we point out about monkeypox?

Ali Khan:

Monkeypox (traditional monkeypox) is classically a rash all over the place. This current new variant monkeypox seems to be different in terms of the signs and symptoms that are reported by people who are infected. You can actually have very few of these lesions, which is why it may get confused with, for example, herpes or some other sexually transmitted infection. So again, I'd like people to have a low threshold to get tested. And again, caution, not panic needed for this disease as far as the disease is concerned, I would advise panic in terms of improving our public health systems however. You know, we're talking about monkeypox, like right now, but I like to remind people that these 450 People who are dying every day in America have a disease for which we have adequate vaccines, for which we have adequate diagnostics, and for which we have adequate drugs called COVID.

Maggie Fox:

Dr. Khan, thank you so much for spending time with us and explaining this to us.

Ali Khan:

Maggie, thank you very much. It's always a real joy and pleasure to chat with you.

Maggie Fox:

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