

Transcript of “S3 E14: Monkeypox, Where Are We Now? with Dr. Peter Chin-Hong”

- Tammy Kremer, M...: In our third update on the monkeypox outbreak, UCSF infectious disease specialist Dr. Peter Chin-Hong shares the toll of the mpox outbreak, the state of the science, and the communities he's most concerned about as mpox becomes less visible. Welcome to Coming Together For Sexual Health where we talk about enhancing sexual healthcare.
- Speaker 2: For most of us, having sex is easier than talking about it.
- Speaker 3: This is not related necessarily to the people who have the infection. It's related to the healthcare system in which they exist.
- Speaker 4: What can I do? What can I learn that impacts change for the people that are in my sphere of influence?
- Speaker 3: This is so, so, so preventable.
- Tammy Kremer, M...: These conversations are brought to you by the California Prevention Training Center at the University of California - San Francisco. It's time. Let's come together for sexual health. All views expressed are those of the person speaking and not of the CAPTC or their employer. I'm Tammy Kremer. Welcome to Coming Together For Sexual Health, Dr. Peter Chin-Hong. So glad to have you here this morning.
- Peter Chin-Hong...: My pleasure, Tammy. Thanks for having me on.
- Tammy Kremer, M...: Absolutely. So for our listeners, Dr. Chin-Hong specializes in treating infectious diseases, especially in immunosuppressed patients including recipients of organ and stem cell transplants and particularly HIV-positive recipients of organ transplants. He's been regularly featured in the media discussing COVID and today's topic, monkeypox. At UCSF, he's a professor of medicine and associate dean for regional campuses in the School of Medicine. So just to kick us off here, I'd love to hear what has your involvement in the monkeypox outbreak been like.
- Peter Chin-Hong...: So my involvement has really been very emotional because I think we'd been through COVID and this was superimposed on COVID and it hit hard. The curve was really steep. In the beginning while we were still trying to recover from all the heart and soul and energy we put in COVID, there were all these cases coming up in people. Even though we had diagnostic tests with the PCR and therapy and vaccines, there either seemed to be a lot a bureaucracy or a lot of delays in getting people what they needed and what we knew that they needed at the time. Specifically, I was involved in not only the clinical care of patients with mpox or monkeypox, but also getting some of the investigational drugs,

particularly tecovirimat or Tpoxx for our patients and helping to organize the system to respond to many calls that we were getting from California, from out of California, and from the Bay Area in terms of people seeking care.

Tammy Kremer, M...: Yeah, and I really hear you on that emotional toll. I'm thinking particularly about those communities that were most impacted by monkeypox and how in some ways that crosses over with those communities most impacted by COVID. What was that like for you seeking to provide whatever care we could especially towards the beginning of the outbreak?

Peter Chin-Hong...: I think to me, the frustration, the heartbreak wasn't only in the patients that I was seeing. It was the patients that I knew we weren't seeing, the people who were invisible who weren't coming for care, who weren't coming for vaccines, who weren't lining up in the lines because it was almost like winning a lottery ticket in the beginning whether or not you can get a vaccine or not even though you're eligible. It was whether or not you knew who had it, when they had it, if you could take time off of work, and when you think about equity around treatment, it was also very asymmetric.

Tammy Kremer, M...: Where would you say we are with that today in terms of who has gotten care, treatment, vaccination, and who is still most at risk?

Peter Chin-Hong...: Well I think on the surface, it seems really good. After having thousands of cases a day in the country at the peak, we're down to about maybe two or three a day in New York and fewer than one case a day in San Francisco. So it looks really good, but I think that there's still parts of the country where it hasn't really gone down. So it's really just looking at the average rather than the isolated areas. I'm still worried about disparities and rural versus urban and invisible versus visible in terms of people coming forward to get a diagnosis or to get a vaccine because in essence when you declare yourself as wanting to seek these services, you're essentially declaring yourself to be part of the community and you may not be comfortable with that. That's probably even more pronounced in vulnerable populations and communities of color. We've learned a lot in the more than 29,000 cases we've had in the US since the middle of May. San Francisco and New York have ended their state of emergency. It's interesting that the federal government hasn't and it's really speaking to this asymmetry in different communities.

Tammy Kremer, M...: Yeah. You mentioned the communities so I just want to name that we're speaking about the queer community folks who are LGBTQ+. Is that right?

Peter Chin-Hong...: Yes, definitely. Still more than 95% of cases are in and have been in the queer community in this particular outbreak which is a third sort of like type of monkeypox that we've seen. Of course, there's the first type in clade one which is in Central Africa. Then there's clade two in West Africa, but this pandemic cluster cases that we've been seeing in many countries over the world, more than 100, is called clade three now and that is particularly concentrated in the queer community.

Tammy Kremer, M...: I've seen some numbers recently that show that there are more infections now amongst women whereas before, there was a larger number that were amongst men who have sex with men. Can you speak to that a little bit and what we're learning from these new types of transmission?

Peter Chin-Hong...: Yes, definitely. I think as time goes on, there's been more attention placed on women and nonbinary assigned-female-at-birth individuals and even though they don't account for the lion's share of cases and morbidity associated with mpox, there has been some recent information about them that I think is particularly insightful or gives us some knowledge. First of all, of this population, only about 60% of them have cases connected to sexual contact and it is found in vaginal samples as well so we can talk about transmission, but I think another key pro that I've learned from the recent studies is the fact that you don't have to be tremendously sexually active to acquire mpox in this population. In the cis-woman in the study, they've had an average of about one partner in the last month as opposed to men who have sex with men who had an average of about 10 or more partners in the last month.

Tammy Kremer, M...: Can we talk about primary ways you think it's being transmitted at this time?

Peter Chin-Hong...: Well I think the majority of cases is still thought to be acquired from skin-to-skin contact in the context of a sexual encounter, but it's not in the same way that we've learned or we've read in the textbooks about monkeypox. It's still not known exactly what the contribution of bodily fluids is versus skin-to-skin contact although it probably is most efficient in that open lesion being adjacent to an exposed area of the skin in the unaffected person. With sexual contact, you have these micro abrasions and the virus kind of leaping from the person who has a lesion teeming with thousands of viruses to an uninfected area. That's probably the most efficient way of getting infected although if you have the virus in bodily fluids as well, semen or vaginal samples just like any other sexually transmitted infection, you also can get these micro abrasions and the virus can also come from there.

So whether or not it's primarily from skin-to-skin or from bodily fluids in that context of sexual transmission, that probably is the most efficient way, but it's not the only way. Of course, there is the whole area of household contacts as well. We know that in that study of cis and nonbinary assigned-female-at-birth individuals that there were some cases of kids of those women and trans people who were infected. So household contact is definitely possible as well although it probably is much less efficient. We know that in the previous West African and Central African outbreaks that a proportion of the household also got infected from as low as 10% in the early days, as much as 50% in more recent African outbreaks. People propose that is probably due to the fact that we're not giving smallpox immunizations anymore to the population. So the household contact proportion is increasing with these traditional clades although in this particular outbreak, it doesn't seem to be as efficient as in the older versions.

Tammy Kremer, M...: As we're speaking about kind of skin-to-skin transmission that's not sexual, we're just recording this shortly after the shooting in Colorado Springs at Club Q, and I'm thinking about how queer spaces have been impacted by all kinds of epidemics, violence among them. But at this point from your perspective in terms of how queer spaces are operating, what kinds of concerns or not do you have about queer community coming together and dance spaces and those spaces that have traditionally been safe culture or safer culture-making spaces for these communities?

Peter Chin-Hong...: I think it's under threat for the transparency in which a lot of interventions have traditionally been made to make the community safer. When we think about safety, we think initially of bodily safety like from violence, gun violence, et cetera exemplified from the recent events in Colorado, but I think as health professionals, we also think about promoting health. If it becomes more underground, it sets back not only people coming together and enjoying each other with an open mind in a place of refuge and sanctuary, but it also, I think, provides potentially more obstacles when you're trying to re-stratify people or get people HIV tested or give them information about PrEP and in this case, give them information about monkeypox and other unnamed outbreaks in the future.

Tammy Kremer, M...: In terms of potential transmission of monkeypox in these kinds of spaces or we can broaden it as well, but what is your take on asymptomatic or presymptomatic transmission given recent research showing monkeypox, like you were talking about, in various bodily fluids but also in those kind of skin-to-skin transmissions?

Peter Chin-Hong...: Yeah, so I think there's been recent information showing that people can transmit monkeypox without having symptoms although the question is whether or not there were actually a rash, for example, that wasn't seen by the person because in this particular outbreak, people are having rashes in areas that are not visible or hard to see, for example the anal area or the rectal area or even on your buttocks. So the fact that these people in the studies didn't notice the rash or that they had a rash didn't mean that they didn't have a rash, but nevertheless, there is some knowledge that as much as 40 or 50% of people have transmission potential before the onset of the rash which is, again, a change in the paradigm that we've had because we think that you're usually most transmissible when you have this open lesion. It kind of puts into perspective the fact that we can't rely on people going to get diagnostic testing and then contact tracing as a way to cordon of this outbreak. We need to focus on broader prevention as well which includes vaccinations of course.

Again, I'm taking the recent evidence with a grain of salt. Again, we don't know, even though it's possible, what the efficiency of transmission is in a presymptomatic phase versus having a full-on rash. As an ID doc, I would probably think that even though it's possible presymptomatic, you're probably still more likely to transmit when you have open lesions although some of the thinking is that many of the people who don't have open lesions are more likely

to have behaviors that put them at risk for both transmission and acquisition of infection because if you have a full-on painful rash, you're probably less likely to engage in sexual activity that would put you at risk. So I think this is one of the areas that I think will get a lot of attention in the ongoing years.

Tammy Kremer, M...: What is your take on the role of behavior change versus any growing immunity via either infection or vaccination in terms of the slowing of the outbreak?

Peter Chin-Hong...: I think the slowing of the outbreak is due to a variety of reasons and we can't put it all on one particular box. Certainly we know that more than 50% of queer individuals reduced sexual behavior after hearing about monkeypox or mpox. We know that they engaged more in closed loops, some of them, and a lower proportion of them used dating apps like Grindr once in the peak of the epidemic, but we do know that this behavior change is not sustainable like in other STIs or in HIV. But it probably did have a part to play, but the other parts that led to this decline was one of timing. When monkeypox first came onboard, it was kind of the perfect storm. There were a lot of Pride events. There were a lot of areas or locales in which this virus could be easily and efficiently transmitted. So right now, there aren't that many events proportionally speaking compared to in May or June.

The second of course is the virus itself. Unlike COVID which mutates very often and shape shifts, monkeypox or mpox, it's a DNA virus so it's less likely to undergo very rapid changes. So once you get infected, you likely have immunity for many, many years if not lifelong. The highest risk individuals were getting infected, they weren't getting reinfected, and therefore, they were also transmitting less compared to, say, a COVID model where people are getting infected and if you're higher risk, you're continuing to get reinfected and then transmit it. That was the second aspect. So behavioral aspects, aspects about the virus, timing, and of course the fourth factor is just to roll out other vaccines which were slow in the beginning, but eventually picked up and probably targeted some of the highest risk individuals although given the comments around disparities, probably not targeting quite everybody you'd love them to target.

For example, in New York of all the vaccines given out, African Americans got about 15% of the doses in the most recent data, but they account for about 27% of cases. In the West Coast, the Latinx population had a very similar dissonance in terms of the proportion of people got vaccine doses verses the number of cases represented by that community. This is in contrast to the general white population where 23% of the cases were in whites, but had received 50% of the doses.

Tammy Kremer, M...: What are some lessons that you take from that in terms of vaccine distribution? I know that clearly we're asking this on the heels of the COVID pandemic and the vaccination barriers we had there. Would you say that these were similar barriers or in what way were they different?

Peter Chin-Hong...:

I think there are many similarities in terms of reaching vulnerable populations. One is that, first of all, I think having mobile clinics and meeting people where they are is really, really crucial in terms of vaccines. We know that when vaccines were in short supply that people who were essential workers, for example, couldn't take time off work to really have access to these vaccines which were typically given in popup clinics randomly without ability to make appointments during the workday. I think eventually like with COVID, that translated into going into communities where people lived with popup clinics in off-hours and also where people went out to after-hours, for example, in clubs and in street events like Folsom Street Fair and in Castro Street Fair in San Francisco. So I think that is certainly a lesson and we've learned that with COVID vaccinations as well. In the beginning, vulnerable populations were lagging what the vaccinations rates were in the general population, but at the end of the day, all the communities were actually on the same page. But it took a lot of work in terms of reaching people where they are.

The second aspect is having key witnesses from the community. In COVID, that meant having community leaders, pastors, community activists talk about the vaccines and dispel myths. In the queer community, it really meant having the similarly trusted individuals from the community talk about the impact on them and what it meant and dispelling myths as well and talking about the vaccine. I think one of my patients was really a good example of that. Actually, the first patient I treated with tecovirimat decided to really go on media and to talk about his illness and his delay in diagnosis and I think that went a long way. Media was really, really prominent during monkeypox and one of the key allies were members of the media who were queer themselves, whether or not that was newspaper reporters, radio announcers, and particularly on TV. A good example of that was Reggie Aqui who was an anchor for ABC7 who had several morning shows dedicated to interviewing people who had monkeypox, clinicians like myself, and really educating the community from somebody who was trusted by the community.

One key difference between the COVID response in terms of community outreach and mpox or monkeypox was really the idea that this was really stigmatized population and vulnerable population. It was very different and when you're lining up for a vaccine publicly with a lot of media cameras roving around or you're even asking your clinician for monkeypox or mpox PCR tests, you're essentially coming out. I think many people were not ready for that and they're still not ready for that. So I think that really needs to continue to be worked on. I noticed that as the outbreak progressed that people were wearing hoodies standing up in these lines, really speaking to the fact that they really wanted to be incognito. I think these were some of the lessons that we learned in terms of community outreach, that degree of outness and how comfortable people were.

Tammy Kremer, M...:

Yeah. It's a really high barrier for care if you're not out to yourself even or out to your personal community to then go into public to get services that are so scrutinized as the media was capturing those lines. I know that you were

interviewed in a lot of places. I'm curious from your perspective what has changed. Why aren't we hearing about monkeypox as much in the media? What's your take on that?

Peter Chin-Hong...: Well I think part of it is because we are experiencing fewer cases in general. It definitely hasn't gone away. There's still a lot of people, I think, suffering, but it's not the people who are the worried well anymore. I think in the beginning, it got a lot of attention mainly because the general population were worried that you'd get it from a thrift store or from going to the yoga studio, but now that, I think, cases are down, we have a little bit more knowledge about transmission, it seemed that it stuck to the queer community. Now, it's even more pronounced in communities of color. That makes it almost invisible and that's what I'm afraid of. I'm really happy that on some level the federal government is still maintaining their designation as a public health emergency because it means that they're continuing to follow it closely in all communities.

Tammy Kremer, M...: On that note, what's your take on the overall response to monkeypox from the CDC, from the CDPH, the California Department of Public Health? I know that early on, there were a lot of activists in the queer community saying like, "We're not getting the care that we need. We're not being regarded with the full kind of respect that would be given to other communities facing health emergencies." From what you say, how much did that impact the response?

Peter Chin-Hong...: So I think when I think about response, you think about not only speed of the response and I think for many reasons even though San Francisco, the Bay Area, and California wanted to be much faster, they were handicapped by obstacles at the federal level, both in terms of diagnostics, treatment, and vaccines that we can get into. But you also think about other aspects that probably are more fundamental. The first is having an alignment of science and politics. I think in San Francisco, in California in general, there's a big alignment between science and politics. Many of the political leaders really take the opinions of the public health leaders and the scientists very, very seriously and I think that happened during COVID. It also happened during monkeypox. So I really felt proud to be here and again like with COVID, San Francisco was the first place to declare monkeypox a public health emergency. What that did was it increased flexibility, for example, using COVID dollars to put in the monkeypox response, but also it was a huge symbolic gesture. Then like with COVID, San Francisco started, probably New York City, and then California, and then the government declared it a public health emergency I think towards the end of July. Again, San Francisco was prescient in that way and was an inspiration for other communities doing that.

But the [inaudible] outbreak or a pandemic as monkeypox eventually became requires much more than an alignment of science and politics at a local level or speed at a local level. It requires a national response and because we don't have a national healthcare system, a national health information system, an easy way to distribute PCR tests and vaccines and therapeutics like Tpoxx, you can only do so much at the local level. I think to me, how many times do we have to really

go through different outbreaks and epidemics and pandemics to realize that coordination system is very antiquated? We can do all we can at the local level. We're going to be stymied by bureaucracy at the federal level, whether or not that is filling out a bunch of forms to get tecovirimat that might take an hour or not having enough vaccines and not knowing what the vaccine formula really was or not ordering enough vaccines when there was the opportunity to order it at the federal level. I think these are all aspects that I hope we can become much more nimble at in the future.

Tammy Kremer, M...: Let's get into the vaccine and Tpoxx and what we've learned about their effectiveness and any other treatments that you have found helpful for your patients.

Peter Chin-Hong...: Yeah, so definitely we can start with tecovirimat or Tpoxx. We've had a lot of experience with Tpoxx in the Bay Area and in San Francisco because we had a big tradition of doing clinical research during HIV and then during COVID. So when the idea came and the opportunity came to use tecovirimat as an antiviral and the way it works is it blocks cell-to-cell viral transmission, UCSF and other groups in the Bay Area jumped at the opportunity. We were able to sort of quickly get the IRB and research coordinators and even though there was a high bar in terms of filling out tons of paperwork in the beginning, we were able to quickly get that drug available to patients in the Bay Area. Even though there isn't a lot of clinical data yet for tecovirimat, it has been approved for the FDA for smallpox since 2018 based on animal studies and a few safety studies in humans, but I think, and you can probably ask any clinician who's used it, it's really done amazingly well for my patients with heavy burden of disease.

I had this one patient who couldn't sleep, was so depressed, his lesions were all over his body, and every time he looked in the mirror, he would cry. He took tecovirimat and two days later, they pretty much disappeared, particularly around his face. So I think there's a good drug. We still need to understand whether or not it's good for people with moderate disease. We've been using it for people with high burden of disease and if it's close to their eyes or their urethra or rectal area, but not in people with moderate disease in general. But studies are ongoing regarding that. There is some concerns that there is a low threshold for resistance so we don't want to use it irresponsibly, but I'm looking forward to some of the new studies that will confirm that there is going to be decrease in viral shedding and potentially transmission and a faster resolution to wellbeing and preventing severe illness in the future.

Other potential treatment includes this drug called brincidofovir which has been used for other viral infections like CMV in immunocompromised individuals. It has a lot of toxicities. It's IV-only. There isn't a ton of data. It works by a different mechanism which is inhibiting viral polymerase kind of like Paxlovid for COVID. This is doing the same thing, but it's much more associated with toxicity and hasn't really been used except in the most serious cases. We had a patient recently at the hospital who broke through with tecovirimat so he was offered brincidofovir.

I think other potential agents that are coming down the pike include some monoclonal antibodies that people are studying that could be used in a variety of settings. There is other antiviral drugs being proposed as well. At the end of the day, I think pain control is something that is really important for people with serious disease. This is one of the most painful diseases that I've seen and really requires a multimodal approach and just really listening to patients' stories and empathizing with the trauma that they've been through. Many patients have had a delay in diagnosis or have experienced stigma because of their lesions or fear of lesions from the community. So I think all of that comes in the baggage when people present seeking care.

Tammy Kremer, M...: Yeah, that kind of real experience of the individuals is so important to keep at the front when we think about treatment. I remember kind of early on learning about the lesions, but it took me some time to really grasp the pain element and the aspect of even dealing with scars once someone has healed and how that can impact someone's sense of self and body image going forward. I'm curious to hear too what we've learned about the Jynneos vaccine and how effective that is based on what we know now.

Peter Chin-Hong...: Yeah, so we've been accruing more and more information about the vaccine. Now, there have been two decent studies, one from the CDC, one from the UK that was just recently released. From the CDC study shows that one dose of a Jynneos vaccine was associated with a 14 odds of protection. So I think that was really good news for people. Then in the most recent study from the UK Health Security Agency, one dose of a Jynneos vaccine was 78% protective for more than 14 days after receiving the vaccine. I think there's still some open questions. What's the efficacy of the new way in which the vaccine is given in the US to increase the supply which is intradermally instead of subcutaneously? How long does the protection last? What's the contribution of other mitigation factors that people would have also used apart from the vaccine in those studies like behavioral modification like reducing sexual partners, et cetera?

So I think these are all questions for the future and I think I'm most interested in the ability to give the vaccines intradermally because it multiplies the vaccine supply by five at least. They're even studying whether or not you can divide one dose into 10 because it has impact on immunizing the rest of the world in many countries that need it a lot more than we do, including places where it's known to be endemic in West and Central Africa.

Tammy Kremer, M...: How has the current outbreak manifested globally in terms of your concern about other hotspots?

Peter Chin-Hong...: Well I think it's really the question of what's invisible and what's visible because to know you have a case requires people, again, to come out to get diagnosed rather than to suffer in silence. It requires health information systems to report these cases. Most of the cases in this particular clade three outbreak have been in Europe and the United States and some in Latin America. So the top three countries are the US, Brazil, and Spain, but more than 100 countries have

reported at least one case. It's whether or not these countries are really having low numbers of cases first of all or there's suddenly going to be a continued risk. Once Pride season comes back again in a few months, it's probably going to increase potential risk again for everyone.

Tammy Kremer, M...: And what's your take on whether monkeypox should be classified as an STI?

Peter Chin-Hong...: Well I think it's been controversial, but to me, it's not controversial at all. I mean I think that there are several reasons why we can think of it as an STI. First of all, the age affected primarily 18 to 44 and more than 75% of cases, it's the same age group as what we see as the peak of sexually transmitted infection. What's most compelling to me is also the fact that 32% of people who've had mpox or monkeypox have also another STI with it. In fact, so many of my early patients had syphilis or chlamydia or gonorrhea with their monkeypox and because we know that more than 50% of the patients with monkeypox have HIV as well.

The second reason is where the lesions occur in this particular outbreak. More than 70% in the genital areas so it suggests sexual transmission link. The third is the fact that we can find it in the semen and vaginal fluid. The fourth reason is that the sexual act itself results in a specific appearance of the lesion. For example, if you are in the mouth, people tend to present with oral disease first before dissemination. If it's really in the rectal area, then that disease occurs there first before the rest of the body, but of course we know from the studies in cis and trans women that sexual transmission isn't only the primary way of transmission and it can appear in other settings as well. Certainly, we've seen that in kids in household transmissions as well.

So the way I think of it is sure, there's a lot of compelling evidence why it's a sexually transmitted infection, but it's not the only way. But that's what we also know about syphilis and herpes. You can get it primarily through sex, but it's not the only way you can get it. Even things like shigella and giardia, you can get it through sex, but you can also get it through other ways as well. From an organizational and systemic way of organizing where people seek services, where you can have vaccines and screening, it probably makes a lot of sense to keep it primarily in the sexually transmitted infection groups and in public health for the time being, but not be close-minded to other routes of transmission.

Tammy Kremer, M...: And you mentioned co-infection with other STIs. What have we learned specifically about co-infection between monkeypox and HIV?

Peter Chin-Hong...: Well I think in the beginning, we were really, really worried about HIV patients getting mpox or monkeypox and it was based on a study in Nigeria where, in their outbreak in the early 2000s of the people who died, a really high proportion occurred in people with HIV, but they tended to be people not on antiretroviral therapy and with high viral loads. But nevertheless, it was one of the criterion used for immediate treatment with tecovirimat in the United States. In fact, what we know so far is, first of all, more than 50% of the cases

have been in patients with HIV disease as well and 82% of the people hospitalized with mpox have been HIV-infected. So they tend to get more serious disease when they do get it. Of the more than 10 deaths in the United States so far, most of them have been immune-compromised individuals. I think it is something that deserves our continued attention and certainly it will be the ultimate high priority group for vaccination and for offering early therapy to.

Tammy Kremer, M...: Overall, what would you say is most needed now in terms of research at this stage?

Peter Chin-Hong...: I think we can think about research in several of the different categories. One is in big picture, continue to have a pandemic preparedness office is really, really important, not just for issues like mpox or monkeypox but for outbreaks that have not yet been named. That requires some of the earlier principles like aligning science and politics and having a national strategy, not just local, and all the diagnostics and therapeutics and vaccines that go along with that, but on a specific nod to monkeypox, I think we need to understand what the duration of protection would be for the vaccines. After a vaccine, would people continue to get local lesions even though they don't get it disseminated in the bloodstream highway? How long does the vaccine last? Can we use even a lower dose of intradermal? Do we need three doses instead of two doses or could you even get away with one dose?

In terms of treatment questions with tecovirimat, can we treat early regardless of stage of disease? What's the likelihood of resistance developing? Can we use combination therapy for the most serious illness? Then when monoclonal antibodies get developed, when do we use the monoclonal antibodies? Can we have long-acting monoclonal antibodies as well like we do for COVID therapeutics? I think for communications, I think we continued to need to laser in on focusing on communities that we haven't reached and that requires, I think, a lot of behavioral science. What's the best messaging for people?

Tammy Kremer, M...: I know there's been lots of discussion about what we call this. So is it monkeypox? Is it mpox? What do you think is the most helpful direction to move in?

Peter Chin-Hong...: Well I think that, first of all, for background, there are multiple, multiple reasons why we shouldn't call it monkeypox. It's stigmatizing to vulnerable populations. There are a lot of racial tropes associated with monkeys. We talked about the disproportionate impact on communities of color already. The second reason is that it's not biologically correct. Monkeys are not the primary species that gets affected by this virus. It's actually small rodents like tree squirrels or rodents in general, but there are a lot of other disadvantages associated with name change. Probably they're overshadowed by the advantages of changing the name, but it has been around since the '50s so there's this vast scientific literature. It is known by the term monkeypox in the endemic countries themselves so there is some familiarity with the term. As opposed to something

like SARS or COVID, those were novel viruses so there wasn't a lot of history. It was easy in a sense to change it.

At the end of the day, I think it definitely needs a name change for all those reasons. I applauded California for really going to the term mpox. It's been really slow for the WHO to come up with another name. In fact, they outsourced the naming to the general population because they really couldn't come up with a good name. So that's why I think, for the time being, we're stuck with mpox.

Tammy Kremer, M...: If I'd asked that at the beginning of the interview, we would have used mpox throughout.

Peter Chin-Hong...: Yes. But I think outside of California, the rest of the world isn't using mpox. So I think for the purposes of our conversation, it is important to use both terms so that people know what we're talking about.

Tammy Kremer, M...: This last question on monkeypox itself, where do you see us going next? What's the trajectory of this outbreak from what we know now?

Peter Chin-Hong...: Well I think that there are three populations of people. The first population is people who have received or acquired infection naturally. They may actually have immunity for life because they got such a heavy dose of virus or for many, many years. The second group is people who've been immunized but haven't gotten the infection naturally. For those people, we don't know how long immunity will last. Maybe some of these people got just one shot and I'm worried that with Pride events coming up in May and June of next year that we may see a resurgence of mpox cases because it probably hasn't gone away. The third group of course is people who have not been exposed and not been immunized. That includes people who are not out, people who were younger at the time and then became of age sexually future. If it's still circulating around, they will certainly be vulnerable to getting it and then transmitting it. That's why I think it needs to be integrated into part of systems of care right now so that we don't get into too much of a problem with that in the future, but no matter how you slice and dice the pie, I think that it is in the background still and it's just waiting for the right perfect storm again.

Tammy Kremer, M...: This podcast is called Coming Together For Sexual Health and I like to end by asking our guests what's one thing you hope we can create by coming together for sexual health.

Peter Chin-Hong...: I think to me, one of the most valuable aspects of coming together for sexual health is community which is a synonym for coming together in a sense. I think community leads to not only coming all together to support each other during tough times like COVID or mpox or RSV or respiratory viruses. It's really coming together to be advocates for each other at all levels. When there was slowness in the response, I think community activists advocated to get treatment. When there was slowness in the ability to have diagnostic tests, I think people rallied

to really open our minds to testing people even though it didn't seem obvious like the picture of the boy that's always shown for the original mpox cases from West Africa. So I think like we've learned throughout many, many years, that sense of community is not only good for support, but it's good for advocacy and activism as well. At the end of the day, it's also good for celebration when we've been through something together and there's time for celebration.

Tammy Kremer, M...: Absolutely. A lot of progress has been made in spite of all of the work that needs to be done. Thank you so much for your work on mpox, monkeypox in addition to coming on and speaking with us about your take. Really appreciate it.

Peter Chin-Hong...: Thanks so much, Tammy. What a pleasure.

Tammy Kremer, M...: Thanks for listening and check out the show notes for the resources mentioned in this episode. You'll also find the link to the transcript of the show. Please follow and rate us wherever you get your podcasts. This will help more people find us. Connect with us on Instagram @comingtogetherpod and learn more about us and get in touch at comingtogetherpod.com. This podcast is brought to you by the California Prevention Training Center where we build the capacity of healthcare professionals working in sexual health and emerging infectious diseases. Check us out at californiaptc.com and follow us on Twitter @californiaptc. This podcast is produced by me, Tammy Kremer, with Laura Marie Lazar and Catalina Macdonald. It is edited by Leila Mohemani and Isaiah Ashburn with original music by Leila Mohemani. We're based at the University of California - San Francisco and would like to acknowledge the Ramaytush Ohlone people, the traditional custodians of the land that UCSF sits upon. Thank you for coming together for sexual health.