Coming Together for Sexual Health Podcast

"Ina Park, MD, on Syphilis: The STI That Keeps Us Guessing"

Tammy Kremer (00:08):

Welcome to Coming Together for Sexual Health. I'm Tammy Kremer and I'm thrilled to talk with you about the world we are creating by coming together for sexual health. And yes, the pun is intended. My background and thinking holistically about health as a facilitator and a doula helps me talk with our guests about celebrating pleasure, combating stigma, and making sexual healthcare both more accessible and more inclusive of the communities we serve. We're powered by nationally recognized experts in sexual health at the University of California San Francisco and the California Prevention Training Center. All these expressed are those of the person speaking and not of the CAPTC or their employer. Subscribe to get our latest episodes, share with your friends, and leave us a five-star review to help more people find us. Thank you for coming together for sexual health. Welcome to Coming Together for Sexual Health Ina Park. So glad to have you with us today.

Ina Park (01:05):

I'm glad to be here. Thanks, Tammy.

Tammy Kremer (01:07):

Absolutely. So Ina this is the second of a two-part conversation we're having. For our listeners, Ina Park, MD is a UCSF professor. She is the principal investigator of the California Prevention Training Center, and she's also the medical consultant in the Division of STD Prevention at the Centers for Disease Control and Prevention, CDC. Ina is the author of Strange Bedfellows: Adventures in the Science, History, and Surprising Secrets of STDs. And lucky for me, Ina is my colleague. And we are here to talk about syphilis. Ina, I know you published an article in the New York Times about syphilis over the summer that got a lot of attention, and you have a lot of experience, of course, just providing clinical care around syphilis. So looking forward to hearing your perspective.

Ina Park (01:47):

It's my second favorite infection, Tammy.

Tammy Kremer (01:50):

After?

Ina Park (01:51):

HPV is my first love but syphilis is really a fascinating infection and I'm really hopeful actually that we're going to see some declines in syphilis because of some of the exciting prevention interventions out there right now.

Tammy Kremer (02:03):

Well, your hope is infectious Ina. Can you give us a sense of what is the current epidemic and what is giving you that hope?

Ina Park (02:10):

Well, I want to direct listeners also to the episode that we've done previous to this on the CDC STI surveillance data. But I'm seeing some hopeful trends in syphilis. And I'll just throw out one statistic for you that we talked about is that for the first time in my career, I've seen declines. We're seeing declines in the most infectious types of syphilis, primary and secondary syphilis among men who have sex with men, who have borne a disproportionate burden of this infection for as long as I can remember certainly. So that gives me hope. And we have a prevention intervention called doxycycline post-exposure prophylaxis or doxy PEP, antibiotics you can take after sex, that I think are going to continue to affect these trends. So I'm really excited, Tammy. But it's still a really difficult infection to recognize and treat, so I really want to get into whatever aspect of syphilis you want to get into, to help our listeners.

Tammy Kremer (03:02):

Well, I think something that is interesting to me and helpful for me is a historical perspective. Can you talk a little bit about the rise and fall of syphilis?

Ina Park (03:10):

Oh yeah, sure. I'll just take us back 25 years. Because in 1999 and 2000, we had almost eliminated syphilis in the country. So 80% of the counties in the US in either 99 or 2000, and I'm sorry, I can't remember exactly what year, reported no cases of syphilis. So we were really on track to eliminate the infection. And then a confluence of things happened, one of which is that there are now effective treatments for HIV, which are great, but people are living longer with HIV and having more sex and using less barriers such as condoms. And then we had as well the advent of the smartphone, which made hooking up easier, and then we had HIV PrEP. So all of these things have piled on each other. And then we were really in 2022 at double-digit increases in syphilis and had been that way for many years. So for the first time, we're really not seeing much of an uptick in syphilis in the United States in the past year in 2023, which is why I mentioned to you that I was so excited.

Tammy Kremer (04:16):

That's very encouraging. I also feel like it's useful to reflect on the possibility of getting to that low rates of syphilis. That also gives me hope knowing that there's some historical precedent, even if it was at a different moment that we can intervene in these kinds of infections.

Ina Park (04:31):

And it's not because syphilis has become easier to diagnose or more obvious, Tammy. It's one of the most challenging conditions to diagnose in clinical medicine because it literally can look like anything. It can affect your skin, your genital organs. It can actually cause symptoms in the mouth. It can cause hair loss. So it's really easy to think that it's something else and not to even think about syphilis.

Tammy Kremer (04:56):

Yeah. Though that's quite a diverse list, can you tell us about how syphilis works in the body and how it causes those different outcomes?

Ina Park (05:04):

Yeah, typically when someone has sex, then syphilis enters through some sort of break in what we call either the skin or the mucosa, like the lining of the mouth or the genitals or the rectum. So it enters and it actually disseminates throughout the body. But the point of entry, you will get typically a painless sore called a chancre. And if you do nothing about it, it will just go away on its own. So it's like the perfect STI

for people who have a strong sense of denial. Like, "Oh, that's not happening." And then guess what? It disappears. The issue is, is that it's really not gone, it's just gone into a little period of what we call a quiet state or latent state. And then as soon as three weeks later, you'll get a secondary stage of syphilis, which typically ends up being a rash.

(05:53):

But really that bacteria can be disseminated anywhere in your body, including in your eyes and your brain, Tammy. But typically you will see a rash on a person's skin, and sometimes that rash is on the hands and the feet. And that's a great time to catch syphilis because not many bacteria actually cause rashes on the hands and the feet. But it's also a time when you might get growths in the genital area that can easily be mistaken for warts or you can get hair loss or again, as I mentioned, changes in your vision or hearing because the bacteria is disseminated all over your body.

Tammy Kremer (06:26):

Got it. Okay. And I think Ina earlier you were saying that the stages where it's infectious, so what are the stages in terms of infectiousness?

Ina Park (06:34):

So primary syphilis is where you have that ulcer. And again, that ulcer can happen really anywhere where you had sexual contact. So it can happen up inside the rectum, for example, and you don't even know that it's there. But that's the primary stage, you got an open sore, there's a lot of little bacteria in there. And then at the secondary stage when it's disseminated all over your body, for example, you can get lesions in your mouth. Those have a lot of syphilis bacteria in it. You can get lesions on the genitals called condylomata. Those have a lot of bacteria as well. So if you have lesions on your hands, there are bacteria inside those lesions, but you're not going to necessarily transmit it just by shaking hands with somebody. So you don't have to worry about that. But if you were to take a little sample of skin or take a little punch or biopsy from the skin, you will see a bunch of bacteria in your skin as well. And those are the infectious stages of syphilis.

(07:27):

And as I mentioned, it can affect the eyes and the ears, and the brain. That can happen really anytime along the pathway of syphilis. But again, if you ignore it when you have a rash, it'll go away on its own. And then you can have it for a couple of years or even decades, and you don't even know that it's there, but it can be causing damage to your heart and your brain, unfortunately. And later on, then you can show up with what we call tertiary syphilis. And that happens after a long, long latent phase where you may not know that you have the infection. You have to do blood tests to figure it out.

Tammy Kremer (08:01):

Got you. Okay. And in that latent phase, are people not infectious anymore?

Ina Park (08:05):

That's right. They're not infectious, but the bacteria is still in your blood and therefore it can still do damage to your body. But if the syphilis is truly latent, you should not be able to pass it onto a sexual partner. But here's the thing, Tammy. I mentioned that some of those ulcers in the first stage are not painful. So somebody could think that they have latent syphilis, but they actually have a hidden lesion that they're just not aware of up inside the vagina or up inside the rectum. So when we diagnose

somebody with latent syphilis, I feel like there's an asterisk on it. Do you know what I mean? To say, well, I think it's latent syphilis.

(08:45):

Either way, you have to treat it the same as if it's early enough in the infection if you think the person had syphilis for less than a year. Even if it's completely hidden, you still have to treat it the same as the infectious stages of syphilis. If you get into the later stages, Tammy, which we call latent syphilis, meaning it's like you've had it for more than a year but it's still hidden, because it grows so slowly at that time, you actually have to give somebody three weekly shots of penicillin in order to kill and eradicate everything. So it's funny that even though you've had it for a long time and it's not growing very quickly, you actually have to give more antibiotic the longer you have it.

Tammy Kremer (09:25):

And what would the treatment be like if it was caught early on?

Ina Park (09:28):

You would just get one shot of penicillin. If people are allergic to penicillin, you can give an antibiotic called doxycycline, which as I mentioned earlier we sometimes use for post-exposure prophylaxis too.

Tammy Kremer (09:42):

Got you. And in 2024, I know there was a penicillin shortage that affected syphilis treatment. How do you think that panned out in terms of its impact on transmission?

Ina Park (09:52):

Well, that's a great question. I mean, yes, there was a shortage for many months. And some people, what they did is they pivoted to using that other antibiotic doxycycline. And some people were also able to ration those doses for cases, for example, in pregnancy for which there actually is no alternative treatment, you have to use penicillin because doxycycline can't be used in pregnancy or it's contraindicated. And so for the most part, I feel like at least from my vantage point, we were able to get some antibiotic to everybody that was active against syphilis. And I think for the most part, we didn't see a huge uptick in cases. So I feel like even though it was very stressful and challenging for health departments to address the syphilis epidemic in light of a shortage, I feel like it ended up doing okay in the end.

Tammy Kremer (10:44):

That's really good to hear. I'm glad to hear there was the multiple options.

Ina Park (10:48):

Yes.

Tammy Kremer (10:48):

And you mentioned congenital syphilis. So why don't we go to that? Can you talk a bit about congenital syphilis?

Ina Park (10:54):

Yeah. I mean, I think every case of congenital syphilis reflects really a failure of our public health system, Tammy. Because if we think about the public health price of penicillin, which is the effective treatment for syphilis in pregnancy, it costs less than 25 cents per dose.

Tammy Kremer (11:10):

Wow.

Ina Park (11:11):

I know. Now some of you who are listening may say, "But wait a second, if you have to pay retail for it, it can cost up to a thousand dollars per dose." So there's a huge disparity in the private versus public sector in terms of the cost of injectable penicillin. But unfortunately, we saw double-digit increases in cases of congenital syphilis in the past five years. But just in 2023, we saw that cases went up less quickly, which is good. They still went up. We have almost 400 babies who were born with congenital syphilis. And I know it sounds strange for me to say that that's encouraging because it was looking so much worse the year before. And the thing is about congenital syphilis, which you're also probably aware of, is that sometimes the babies are born stillborn or they die in the first 30 days of life. So sometimes it's too late to reverse the effects of syphilis on the baby.

Tammy Kremer (12:10):

And if it's recognized that a baby has been infected with syphilis close to birth and the baby has administered antibiotics, what are the outcomes that we see there?

Ina Park (12:19):

So if the baby has not had any organ damage from syphilis yet, actually babies can have a completely normal outcome in terms of their neurologic development and lifespan. So if you get the infection early, even if the baby is actually born with syphilis, you catch it early and it hasn't done a lot of organ damage, then you can have an absolutely fantastic outcome. Now it's the cases where it's missed or the mother got the infection so early in pregnancy that a lot of damage has already been done. You really can't reverse any damage that's been done. But even when the baby's born with syphilis, you can prevent downstream negative effects.

Tammy Kremer (12:57):

And those effects would be neurological, organ failure.

Ina Park (13:00):

Yeah. They can be on growth, bone development. Can affect facial bones, teeth. It can affect the eyes and ability to hear. It really can affect any organ system.

Tammy Kremer (13:11):

It's pretty incredible to think that one shot of penicillin could have prevented all of that for a new child.

Ina Park (13:20):

I know. Which is why I really feel like Tammy, for the first time in my career that the entire country is mobilized around this. Is really mobilized. All the different STI programs at the state level, folks that I've interacted with at national conferences, everybody is so laser-focused on trying to work on the

congenital syphilis epidemic. And again, Native American populations are the most affected in terms of the rates of congenital syphilis. And there is wonderful work being done in Indian Country by Indian Health Services on this issue.

Tammy Kremer (13:52):

That's really encouraging to hear Ina. And something I had in mind was how response efforts to syphilis may or may not be building on lessons learned from response to other infectious diseases.

Ina Park (14:06):

Yeah. I mean, I think for this epidemic in particular, what I've seen happen on the ground has been really encouraging. And as you mentioned, some of the lessons we learned from HIV are being implemented around syphilis. I'll give you an example. In Chicago, they started implementing screening in the emergency departments for syphilis in the same way that emergency departments... When people are coming in for a broken leg or whatever, that visit's being used as an opportunity to screen for infectious diseases like HIV and syphilis. And so in Chicago, they implemented that and evaluated it and found quite a few cases of women with syphilis, and so were able to catch women at that point when they were coming in for something totally unrelated and then prevent cases of congenital syphilis. It's been a very effective program. Other things that are happening are, for example, syphilis testing is happening in places like needle exchanges and also in correctional settings like jails and prisons. So again, things that we've done for HIV are working well for syphilis as well.

Tammy Kremer (15:10):

That's great to hear in terms of learning from some of those lessons. Especially in the wake of, of course, the COVID pandemic, I feel like there's just such heightened awareness of how infections can spread. And I wonder how that's also affecting people's understanding of what's happening or maybe people's likeliness to take it seriously.

Ina Park (15:31):

What I'm hoping is that it reduces people's stigma, for example, around getting contacted by the health department. I think during COVID, people got accustomed to what a contact tracer is or a disease intervention specialist. And so now I think that people are more familiar with that practice of contact tracing. So when that happens for syphilis, which is a very important way to reduce the transmission in the community, that people are more open to that because they remember it from COVID. And also the thing is, is that when your audience is already in a setting like the healthcare setting or at a needle exchange, or you're meeting people where they are, then I think they're more likely to accept your services. So I think it's a multi-pronged approach.

Tammy Kremer (16:13):

Ina, I'm curious, what would you like our listeners to take from this conversation? If there's one or two things that our listeners could take about syphilis, what would you want those to be?

Ina Park (16:25):

Every physician who came up in my generation in medical school almost never saw a case of syphilis because there was no syphilis in the United States. So what I want folks to do who are listening is to put syphilis on their radar. And anytime somebody comes in with a weird rash or some weird growth on their tongue or a weird open sore on their mouth or wherever, I just want you to think about it and say,

the test is really cheap. Order an antibody test. And as long as you realize there is a syphilis epidemic in the United States now, and it can look like anything, just throw syphilis on with the other tests that you're doing to work up somebody who's got a weird new finding on their body. Just think about syphilis.

(17:09):

And that means that you need to find out whether or not your patient is actually having sex. So you do have to ask that question. And it can be hard. It doesn't have to be a thorough sexual history, but if the person is sexually active, especially if they're in networks of queer folks or men who have sex with men, just order syphilis test. Costs almost nothing. It could yield results that are very easy to treat and can really prevent a lot of heartache later.

Tammy Kremer (17:37):

Awesome. Yeah. I mean, that's a very clear directive of what's needed.

Ina Park (17:41):

Yeah, think about it. Think about syphilis.

Tammy Kremer (17:45):

Think about Ina's second favorite STI.

Ina Park (17:47):

Yes. Think about it. Exactly. If you even think about it as a possibility, you will test for it.

Tammy Kremer (17:53):

Yeah. And you mentioned specifically for folks who are in networks of gay men or queer men. You've also mentioned the disproportionate impact on American Indians and Alaska Natives. Are there any other communities that we're thinking about or regions where you'd like people to have that heightened sensitivity?

Ina Park (18:11):

We mentioned it on our earlier episode, Tammy, that STI rates are highest in the south. And we do also have a ton of syphilis here, right here in California. But right now, actually, the entire country needs to be on alert. I wish I could say actually this is primarily an issue in this region of the country, but that's really not true right now. Syphilis has increased everywhere, so everyone needs to be on alert. And it's not just happening in gender-expansive people and gay men, that's not true. It's really got to be on everyone's radar. And the CDC actually has new guidance that folks 15 to 44 in almost all the counties in the US actually should be just tested routinely at least once.

Tammy Kremer (18:49):

Got you. I'm glad I asked that question because I think sometimes it can be tempting and thinking about this to really look at the rates and different communities and then try to look in and be like, well, this person is more likely, or looking at that individual level. So that's helpful to remember for all folks.

Ina Park (19:06):

Yeah. And if we publish helpful resources along with this where we have our podcast listed, it'd be good to put in the CDC's geographic risk calculator. You put in your county, and it'll tell you what the geographic risk is and whether or not everybody should be getting a syphilis screen in your county or not.

Tammy Kremer (19:22):

Great. Yeah, we'll definitely put that in the show notes. So coming to the end here, where can our listeners find you?

Ina Park (19:27):

They can find me on your podcast, Tammy. They can also come to my Instagram @inaparkmd, so I-N-A-P-A-R-K-M-D. Or they can find more about me on my website. It's inapark.net. And so all of my pieces that I've written for the New York Times as well as other podcasts that I've been on, I mean you can hear the recordings there. I do do other shows other than yours, Tammy. I try not to, but I just can't help myself.

Tammy Kremer (19:58):

Also, I'm just going to shout out your book.

Ina Park (20:00):

Oh, thanks.

Tammy Kremer (20:01):

I hope that our listeners will take a look at it. It's called Strange Bedfellows. Excellent read.

Ina Park (20:07):

Yeah. I promise it'll make you laugh while you're learning about STIs.

Tammy Kremer (20:10):

That's definitely true. I recommend the audiobook version so you get to hear Ina's voice.

Ina Park (20:14):

There you go.

Tammy Kremer (20:15):

And what's one thing as it pertains to syphilis that you hope we can create by coming together for sexual health?

Ina Park (20:21):

Oh my gosh. You know what? I think if everybody listening to this podcast and every provider who does clinical work in America can just think about syphilis and know that there's an epidemic going on, I really think that we can put a dent in this.

Tammy Kremer (20:35):

Well, thanks so much for your work Ina, and for always bringing some humor, some hope, just how you show up in your work every day.

Ina Park (20:42):

Thanks, Tammy.

Tammy Kremer (20:44):

Thanks for listening, and please follow and rate us wherever you get your podcasts to help more people find us. And hey, how about sharing this with a friend or a colleague you'd like to talk with about sexual health? Check out the show notes for the resources mentioned in this episode and the transcript of the show. Connect with us on Instagram at comingtogetherpod, on X at CaliforniaPTC, and at comingtogetherpod.com. This podcast is produced by me, Tammy Kremer, with our co-producer and editor, Isaiah Ashburn, brought to you by the California Prevention Training Center. 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.