00;00;06;26 [Jen]: From the California Prevention Training Center in San Francisco, this is Speaking Frankly, the State of Sexual Health. We know good sexual health doesn't just happen, it's created. In this series, we're starting the conversations we should already be having. We'll speak with experts in the field about sex, stigma, and all of the other factors that shape our sexual health and our everyday lives. I'm Jennifer Rogers. Congenital syphilis is when syphilis is passed from mom to baby in utero. cases have risen 900% in California since 2012, Dr. Rosalyn Plotzker, Assistant

00;00;43;04 professor in the UC San Francisco department of epidemiology and biostatistics and clinical faculty with the California prevention training center studies, the illness. Today, she speaks with us about the challenges physicians face in treating congenital syphilis, and why she thinks the illness is a symptom of deeper social issues like systemic racism. Thanks so much for joining us. And I hope you enjoy the episode. So I'd love to

00;01;10;17 start off by hearing about how you got into the medical field and specifically what drew you to working on a focus in STI?

00;01;19;01 [Roz]: Well, it all goes back to the nineties. So essentially when I was a teenager and a college student, I was always very, very interested in HIV activism. I was, you know, passionate about health equity and about social justice at a pretty young age. And then, you know, inevitably got involved in harm reduction and eventually ended up getting interested in medicine that way. So when you are doing a lot of HIV

00;01;50;14 activism that obviously involves sexual health and involves rights for people of all sexual orientations and gender identities. So that interest really persisted and I followed it. So I ended up going to medical school, continuing that interest in HIV prevention and then in residency stuck with it through a preventive medicine residency, and then luckily found this STD

00;02;20;26 fellowship. And so I came to California to do an STD fellowship specifically with UCSF and the California prevention training center. And that was also in collaboration with the state health department as well. So I was able to get involved in sexual health and STD prevention that way.

00;02;40;27 [Jen]: We had talked a little bit offline in preparation for this interview. And I know that you mentioned that you were working in Puerto Rico, is that right before you came on board in the fellowship? And so was that related to sexual health and/or HIV?

00;02;56;02 [Roz]: Yeah, somewhat. So when I was a preventive medicine resident, I did my residency in New York and that was during the emergence of Zika and Puerto Rico had a major Zika outbreak. And so the CDC had what's called an emergency operation center there. And I was lucky to be able to go work there as a rotation, as a resident. And so Zika is

00;03;26;20 something that has a profound impact on people who are pregnant and the fetus. So in a sense, it had a little bit to do with sexual health, although more having to do with prenatal care more so than, than actual sexual transmission, which can happen. But it's rare.

00;03;46;21 [Jen]: One of the many reasons that I wanted to talk to you today is you focused a lot over the last several years on congenital syphilis. And I really wanted to have you on so that you could explain more about the work that you're doing and about a lot of the complexities that physicians are facing with this. And just in terms of public health that we're facing as an industry and ways that we can prevent congenital syphilis. For those folks who are not familiar with congenital syphilis, can you give us a definition of the illness and then how congenital syphilis differs from

00;04;21;26 syphilis?

00;04;23;08 [Roz]: Yeah, of course. Well, I think probably the easiest way to start is first by saying what syphilis is. So syphilis is a bacterial infection and it is transmitted sexually. So it's transmitted from one person to another, during sex. And when the infection occurs in an adult, if that adult becomes pregnant, then the bacteria can also be passed to the fetus through the placenta. So that's essentially what congenital syphilis

00;04;55;18 is. It's when it's passed from the mother to the baby in utero. So that's basically what the differences between syphilis, which is the general infection and then congenital, which means that it was acquired during pregnancy, by the fetus.

00;05;12;11 [Jen]: And what are the outcomes? If a, if an infant is born with congenital syphilis, what are the symptoms and what may they experience upon birth?

00;05;21;25 [Roz]: So there's a really wide range and it's incredibly, incredibly complicated. It really varies from baby to baby. Essentially, a majority of babies are born without any symptoms. And then some of them will develop symptoms later in life. Those are called late manifestations. They usually happen at about two years of age or later. I'll talk about those in a minute. The early manifestations are things like skin lesions,

00;05;52;00 meaning that you can have some sores on the skin. You can have problems with the liver, with the spleen, problems with the nervous system, including the brain, and it can cause blindness and deafness. So it's a really wide range and a proportion of pregnancies where syphilis is passed to the fetus will end up resulting in stillbirth. So you'll have a fetal death. So that's the most tragic outcome. And then for later, manifestations that can happen when the baby is older, more like a toddler

00;06;27;14 or a young child, you can see things like changes in the skeletal development. So you can have changes in bones and you can have nervous system changes. Like I said, deafness, blindness, those kinds of things. So overall it's a really devastating disease. And also one that's very, very, very preventable. Luckily for us.

00;06;48;26 [Jen]: We're definitely going to talk in more detail about how it can be prevented later in our conversation, but I want to know what is the treatment look like if a baby is born with congenital syphilis, what can be done at that point?

00;07;02;27 [Roz]: The good news is that it's very treatable. And essentially it depends on the scenario that congenital syphilis occurred. The CDC has different recommendations based on if the mother did receive treatment when she was pregnant or if she didn't receive treatment when she was pregnant. And also based on what the baby looks like and what the physical exam is like when the baby's born, but essentially it can be treated with

00;07;33;08 penicillin and the type of penicillin that gets used as either an injection where it's injected into the baby, the baby's muscle, like a shot or in more severe cases, it's treated with IV penicillin, which means the baby gets admitted to the intensive care unit and gets treatment intravenously and that's over 10 days.

00;07;56;04 [Jen]: And so would that cure all of the symptoms that an infant would experience, or I guess it, it kind of depends on the severity of the symptoms when treatment is implemented, correct.

00;08;08;19 [Roz]: For the early manifestations that I mentioned, which are the things like the skin changes and the liver changes. And those earlier manifestations are things that are reversible.

00;08;20;27 [Jen]: There has been an incredible spike of congenital syphilis over the last eight to 10 years or so. And I wanted you to speak to that. Why has there been such a rise and what do you think is causing this?

00;08;36;03 [Roz]: Yeah, that is one of the number one questions on a lot of people's minds. Basically what we've seen in California is that there's been a rise in congenital syphilis between 2012 and 2018. That's the statistics we have available to us. There was a 900% increase. So in 2012, it was 33 cases. And then by 2018, we were up to 329 cases in that one

00;09;09;29 year. So if you're right, that this has been increasing dramatically. And like I had mentioned earlier, congenital syphilis is something that is actually very preventable. The way to prevent congenital syphilis is through prenatal care. One of the main concerns that we have is that congenital syphilis that could have been prevented is not getting prevented

00;09;36;28 because people aren't able to access prenatal care for one reason or another. In California, about half of people who deliver an infant with congenital syphilis either had no prenatal care or late prenatal care, meaning that they had their first visit very late in pregnancy in the third trimester. And ideally to prevent congenital syphilis, you need to be able to treat the mother 30 days or more prior to delivery. And then there's

00;10;06;24 also a concern about a rise in syphilis, among females in general. So we've been seeing more cases of syphilis among females since 2012. And as cases among females rise, we are also seeing a rise in pregnant people who have syphilis and with that a rise in infants, who are born with syphilis as a result. So there's a lot going on there

00;10;34;28 [Jen]: There's a lot going on. And I'm wondering if you can speculate or if there's data that speaks to kind of the causes underpinning, lack of access. Is it an increase in unemployment and therefore lack of insurance?

00;10;49;24 [Roz]: It's a very complicated story. And I think that when I do work in congenital syphilis, and when I think about congenital syphilis, one of the things that I think about a lot is that it is still preventable with prenatal care. And so it's really showing us who is able to access prenatal care and who's not. And so I think that one of the things related to the increase in congenital syphilis is that it's a signal that there are groups of people who are not accessing prenatal care. And the reasons I think are pretty complicated. To be honest, there are a few things that

00;11;23;06 we've seen. One is that a large proportion, a little over half of people who are delivering infants, who have congenital syphilis also have documentation of using methamphetamine. So there is a relationship between methamphetamine use and congenital syphilis. So that's one concern. Another concern is homelessness. That many cases of congenital syphilis are

00;11;51;13 born to parents who are unstably housed. So I think that those two factors would make it difficult for someone to go into traditional prenatal care settings. And that could be related to a really wide range of things. It could be related to perceived stigma associated with drug use perceived stigma associated with housing status instability. So those are all major

00;12;21;00 factors. Another thing that is a possible concern is that among people who are pregnant, who are either unstably housed or who are using methamphetamine, is that they, and again, this is anecdotal, but that there may be a concern about loss of parental rights if they do enter prenatal care while using methamphetamine. And so I think that there is also a concern about whether or not they will be able to maintain their parental

00;12;54;25 rights. So that's another reason that I think anecdotally, I've heard people are hesitant to enter prenatal care, which is an incredibly complicated issue. And one that I don't think we have a lot of good answers for.

00;13;13;24 [Jen]: So what populations are seeing the greatest impact from congenital syphilis?

00;13;19;20 [Roz]: Typically what we see is that mothers of infants who are born with congenital syphilis are between 20 and 34 years old. So they're in their twenties and early thirties in terms of race and ethnicity, the largest proportion of congenital syphilis cases are born to mothers who are Hispanic or Latina. That's about half of them. So that's the, not the highest number of cases. But if you look at the rate, the highest rate of

00;13;53;14 congenital syphilis, and this is an interesting distinction is among infants who are born to Black mothers. And so the rate of congenital syphilis among infants, born to Black mothers is about three times higher than that, of their white and Latina counterparts, which is about equal. And again, this is looking at rate rather than number of cases.

00;14;16;24 [Jen]: That is an interesting distinction and a very notable one. Can you speculate as to why that is?

00;14;24;19 [Roz]: So the rate of congenital syphilis being higher among black mothers compared to white and Latina counterparts, it's a reflection of syphilis among females in general. So that is echoing what we're seeing among all females, not just pregnant people, but females in general, in California, that there's a higher rate of syphilis among black females compared to their white and Latina counterparts. And, you know, I think

00;14;57;21 that that is something that frankly is a reflection of racial disparities that we do see in sexual health and something that we do see in STD care that you have issues related to systemic racism and health care delivery within our society that are perpetuating health disparities and having people who are people of color and ethnic minorities, having higher rates

00;15;30;01 of STDs, including syphilis,

00;15;33;11 [Jen]: Given all of that. I mean, we have a very complex illness that you've just described that's absolutely preventable. And in many cases, very treatable. Well, and it's gone up 900% since 2012. So what's being done at the state and local levels to address this in California,

00;15;54;02 [Roz]: The California prevention training center has been partnering with the California department of public health to do multiple, multiple trainings, develop training materials, educational materials, clinical tools. So there's been a major influx in terms of raising awareness, as well as increasing provider education. This is something that was a very rare disease. And as we have more and more cases, there's a growing need for people to get educated and understand how to diagnose this

00;16;29;02 and how to manage it, and also to understand the importance of preventing it. So there's a really big effort in provider education. The California department of public health, along with the California prevention training center did just release expanded syphilis screening guidance. And that is intended to increase the way that women are screened for syphilis in California. And so that was released in 2020. And so we're hoping to be

00;17;00;28 able to expand the way that people are screened for syphilis as a way of increasing the number of people who are identified with syphilis so that they can be treated either in pregnancy or prior to pregnancy so that if they have syphilis before they become pregnant, that gets treated as well.

00;17;21;10 [Jen]: So I have a couple questions. You mentioned that. I mean, because this was such a rare illness until 2012 essentially, physicians may or may not have had a robust training on this illness during their medical training. So what types of challenges are physicians facing in identifying and treating the illness?

00;17;45;12 [Roz]: Well, like I said, a lot of, a lot of cases of congenital syphilis are in part the result of a person having no prenatal care. So for that, there's not a lot that a physician can do in terms of preventing it. And that's about half of cases. There's also the issue of completing treatment. So many people who are diagnosed with syphilis during pregnancy require three doses of penicillin, and they might get the first two or they might

00;18;18;13 get just one, but they don't end up completing their treatment. So that's another tricky point in preventing congenital syphilis. So what I will say though, is that of people who are diagnosed with syphilis in pregnancy, I do think that physicians are doing a pretty good job, you know, consistently they've been able to prevent about 70% of potential congenital syphilis cases. So while we do have this increase in congenital syphilis,

00;18;48;23 we also are at least keeping up with the proportion of people who are able to be treated appropriately in the prenatal period.

00;19;00;02 [Jen]: So, pretend in a magical, wonderful world we have unlimited staffing and financial resources, what can be done on the physician side. And then also I'm thinking about how can more outreach be done to reach folks who may be unhoused or unstably housed who may be in rural areas, or just harder to reach, to make sure that they know how they can get the care they need.

00;19;27;13 [Roz]: Yeah, I think it is something that would require a multi-pronged approach. Something that requires a lot of different partnerships, you know, as you mentioned, and, and rightly so that reaching people is a major issue. One thing that the most recent expanded screening guidance put out is that they recommend screening people who are coming into an emergency room who are pregnant. So oftentimes if someone is not in prenatal care, then if they do have a medical need or let's say they're

00;19;59;25 pregnant and they start to have contractions or something like that, that they will go to an emergency room. And so that's one opportunity to reach people. And that's been recommended as of last year. In addition to that, partnering with groups that work with people who are unstably housed, partnering with jails, which is also something that's part of the new expanded screening recommendation, and partnering with groups that work

00;20;30;27 directly with people who use methamphetamine. All of those are ways to reach people who could benefit from syphilis testing, especially if they're not in prenatal care. So I think really what it boils down to is figuring out ways that people who are reluctant or unable to go into prenatal care can at least receive the very basic blood tests and very basic care that

00;21;01;25 they would need to prevent syphilis. But also it's an opportunity to link them to prenatal care in a way that's compassionate, that can be on their terms. And that feels safe to them

00;21;12;23 [Jen]: When it comes to the clinical side of the house, what can be done if we had unlimited resources to help address this issue?

00;21;20;23 [Roz]: Yeah, no, that's a really good question. You know, one of the things that's tricky clinically is that diagnosing syphilis can be hard that, you know, to diagnose syphilis, you need two different blood tests and neither of them is detecting syphilis directly. They're detecting the body's reaction to syphilis via antibodies. And so we don't really have a very clear cut test for syphilis. And that's one of the things that's difficult about diagnosing it. So having better diagnostic tests would

00;21;54;29 definitely help, although unfortunately, there aren't any that are in the pipeline that are anywhere near to being available in terms of availability to the general public. But that would be if I could have unlimited resources and have a magic wand, I think that having a definitive diagnostic tool for syphilis in general would be phenomenal. Besides that,

00;22;21;23 you know, penicillin works. We are very lucky that syphilis has not developed any resistance to penicillin. So that is a miracle because it's been around since 1940. So I think that the treatment for syphilis is effective and that maybe clinically, if there was a way that we could have a treatment for syphilis where people didn't

00;22;51;10 need to come in for three doses, and we had a treatment where, you know, there's early syphilis where you only need one dose, but the majority of people are diagnosed with what's called late syphilis or unknown duration. And so those people need three doses. So if we had a treatment where we could give them a single shot and they would be done, then that would be another really good thing that would help us.

00;23;19;29 [Jen]: Yeah. It sounds like that would really lower the barrier to seeking care complete, the treatment course

00;23;25;00 [Roz]: Definitely address that.

00;23;27;00 [Jen]: So have other States been as severely impacted as California?

00;23;31;26 [Roz]: Yes. The California used to be number one. And now we are number five as of 2018. So there are a couple of States that are a little higher than us.

00;23;43;13 [Jen]: Can you tell us a little bit about the work that you've done at the California prevention training center to support folks throughout the nation on how to best, basically best practices for treating congenital syphilis?

00;23;59;26 [Roz]: I've done a couple of things. I have done many, many, many webinars. The California prevention training center has a region that includes Nevada, New Mexico, Arizona, Hawaii, and California. And I have been very lucky to travel to those places except unfortunately, no New Mexico, but the other ones. Yes. Oh, we also do Guam and I haven't gotten to go to Guam yet. So I've done, um, presentations, both in-person and especially with COVID-19 as webinars. And then we also have something

00;24;33;07 called the STD clinical consultation network where people who have clinical questions related to any STD, you know, including syphilis, but also gonorrhea, chlamydia, trichomonas, you name it, people can submit their questions and then we can help those people troubleshoot through these complex scenarios. And I did an analysis of their requests, about two-thirds

00;25;00;22 of them had to do with syphilis and about a quarter of all of the requests that we receive, have to do with congenital syphilis specifically. So that really is like one of the most commonly asked topics because it's kind of confusing, figuring out does this infant need treatment? Does this infant need the shot treatment? Was this person adequately treated in pregnancy or not? You know, really trying to understand it can be complicated. And then

00;25;31;06 the California prevention training center also developed clinical tools that are on our website having to do with diagnosing and managing congenital syphilis. And those tools are done in collaboration with the California department of public health. So they're also disseminated through the health department.

00;25;51;04 [Jen]: So I like to ask all of our guests this last question, what should we be talking about more when it comes to congenital syphilis or sexually transmitted infections in general, or any area of your work that you just think we need to be having more open discussions about?

00;26;10;13 [Roz]: I mean, to be honest, I think that the thing I find most intriguing is the health equity issues that are wrapped up in this. But when I started the STD fellowship that I mentioned, I was telling all of my friends, I was shocked about congenital syphilis and how strongly related it is to issues related to structural racism, issues related to access to health, issues related to harm reduction, issues related to people who use drugs, seeking care, all kinds of social justice issues come up when it comes to

00;26;45;06 congenital syphilis, because this is so, so, so preventable. And my friend jokingly said that congenital syphilis is my social justice Trojan horse, you know, and that I can like hide all of my social justice issues in congenital syphilis and say that because of racism, there's congenital syphilis. And because of, you know, so I really do, but I really do believe that I really think that in the past we had a low, low rate of congenital

00;27;14;14 syphilis and there are places in the world where congenital syphilis, if not eradicated has been drastically diminished. And so in California and in the United States, I think that when we think about congenital syphilis and we think about STDs in general, that we really should be taking a very close look at where there are issues related

00;27;42;04 to structural racism, issues related to accessing health care that are having to do more with systemic problems related to our healthcare system, that this is not related necessarily to the people who have the infection it's related to the healthcare system in which they exist, which is not meeting their needs and why those needs aren't being met. I think we just

00;28;13;14 have to look at ourselves with a very, very critical eye,

00;28;17;23 [Jen]: Right? The illness itself is a symptom of so many other factors.

00;28;22;17 [Roz]: That's what I would say. [Jen] Do you have anything else that you'd like to add? I[Roz] would like to say thank you to you. Thank you to you conversation. I would like to say thank you to you for this conversation and for anybody who's listening, who wants to use that resource that I mentioned, the website is STDccn.org, which is STD clinical consultation network. And yeah, thanks for having me.

00;28;50;21 [Jen]: And where can folks find the expanded congenital syphilis guidelines?

00;28;55;18 [Roz]: Those are on the California department of public health website, and they're also on the California prevention training center website.

00;29;04;20 [Jen]: Awesome. Fantastic. Thank you so much for sharing all of your insights and for your time.

00;29;10;19 [Roz]: Thank you

00;29;12;18 [Jen]: A special, thank you again to our guest, Dr. Rosalyn assistant professor in the UC San Francisco department of epidemiology and biostatistics and clinical faculty with the California prevention training center. Speaking Frankly, is a production of the California prevention training center in San Francisco, California. It's produced by me, Jennifer Rogers and Laura Marie Lazar, and is edited by Nils Meyers at 152 West productions.