

# Syphilis Prevention, Testing, and Treatment for People Experiencing Homelessness Transcript

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### Introduction

#### [Katie Hill, she/her]

Thank you everyone for joining. The topic we're presenting today is Syphilis Prevention, Testing, and Treatment for People Experiencing Homelessness with Minnesota Department of Health staff and staff from Hennepin County Public Health and the Red Door Clinic. Just a couple things to keep in mind with the Webex platform. Attendees are all muted throughout the presentation, but if you have a question when someone's presenting, please use the Q&A panel. In the screenshot on the slide, you will see that you can open the Q&A panel by clicking the three dots next to the chat speech bubble. If you open those three dots, you'll have the Q&A option and that panel will pop up separately. That just allows our panelists to be able to directly answer your questions and so that they don't get lost within the chat when we're providing links and things like that to you throughout. We are recording and slides will be available along with the recording on our website once those things are accessible. You'll be getting emails from us. One email from us following - hopefully this week, if not early next week - with the follow-up survey for you to provide feedback to us, and then also we'll let you know once the recording and slides and things like that are available online. So again, feel free to use the chat if you have any technical issues or questions, but please put your questions related to the discussion in the Q&A panel, and I will pass it over to Josh.

#### [Josh Leopold, he/him]

Hi, good afternoon everybody. I'm Josh Leopold. I'm the senior advisor on Health, Housing, and Homelessness for the Minnesota Department of Health, and I just wanted to kick off the webinar by saying that the webinar today is part of a series that we recently started at the health department on public health and homelessness. And so we'll be doing these webinars quarterly, and so the first webinar we did was in March and that was about harm reduction for homeless service providers, and you can now go to our link on our Center of Excellence homepage to watch the recording of that webinar and download the slides. And then if you have - so we wanted to do we decided that we wanted to focus on syphilis today just because, as we'll get into in a few minutes, we're seeing both in Minnesota and across the country, a really rapid increase in new syphilis cases and it kind of, I think it snuck up on a lot of people because it kind of started/coincided with the start of the pandemic and so it hasn't really received a lot of attention, but it's something that, you know, with sustained focus and early testing and treatment - it's something that, you know, we can really get a handle on, but if without those interventions that can become very serious. So we wanted to just get the word out about that and about the great work that the public health nurses are doing at MDH and then the work of, you know, places like the Red Door Clinic and Hennepin County. So that's our focus today, but if you have suggestions for topics that you'd like us to focus on in the future, you can do so by sending an email to the email address below, health.homelessness@state.mn.us. And also if you want to make sure you get notified of future webinars, you can subscribe for updates by joining our public health and homelessness listserv with the link below and in the chat. Okay great, so next slide.

Okay, so the agenda for today is that we're gonna start with a little bit of a 101 about syphilis from the Hennepin County Public Health team based out of the Red Door Clinic. And then our MDH staff Karmen Dippmann will be presenting on our statewide surveillance, which is kind of the public health way of saying data trends and also

our prevention efforts. And then we'll get a little bit into the specifics of what the DIS position is, and how they work with, do the treatment follow up, testing and treatment and follow up for syphilis cases. And then we'll also hear about a case study from the folks at the Hennepin County Public Health Red Door Clinic, and then our goal is to leave at least the last 20 to 25 minutes for discussion. So if you have questions as we're presenting, you can use the Q&A feature, and then we'll also have an opportunity to raise your hand and ask us questions at the end. All right, thank you very much. Okay, and now we have a poll question. Katie, do you want to explain how the poll question works?

#### [Katie Hill, she/her]

Yeah, so everyone should be seeing the Slido panel pop up on your right-hand side. It's just a feature to poll people within Webex. All you have to do is select one of the answers to the question that's listed on the slide there: "How familiar are you with syphilis, including how it is spread, symptoms and stages, and treatment options?" So very familiar with, somewhat familiar, or not at all familiar. Once you select that, please hit the send button within Slido and then you'll be able to see the breakdown of what people are, what their comfortability level is, and how familiar they are, just to get insight into who our audience is today. So please complete that poll so we can have a little bit of insight on that. Anything else to add Josh?

#### [Josh Leopold, he/him]

No, I think I see the results coming in, so it looks like people are getting it. So that's great.

#### [Katie Hill, she/her]

One more minute, looks like majority are somewhat familiar, but we always have a variety of levels and things to consider, so hopefully the content in this webinar is helpful to all of you. And I will pass it on to Hennepin County to go over our 101.

### Syphilis 101

#### [Lizzy Windsperger, she/her]

All right, thank you. Yeah, I wanted to thank you all at MDH for inviting our team to talk today. You can skip ahead to the Hennepin - a couple of slides ahead here. My name is Lizzy. I'm a registered nurse, and I'm also a disease intervention specialist, and we refer to our job title as a DI. So if I say DI, that's us folks who investigate contacts and the spread of syphilis amongst people who test positive and their networks. So I'm here to talk about syphilis 101. We didn't really know what to anticipate with what people's baseline knowledge was, it looks like 66% of you are somewhat familiar with the treatment of syphilis and the course of infection, so I'm still gonna go over this information, but I'm gonna try to frame it in a mindset of a DI, and things that we are looking for and concerned about and thinking about as far as treatment, which will help make the rest of our presentation make more sense.

So syphilis is a bacterial infection, Treponema pallidum is the name of the bacteria and it's treatable. This is one of the first things that we want to convey to our clients who test positive for syphilis. There are antibiotics to treat syphilis and that's a really important thing to tell people. Transmission is mostly from skin-to-skin contact, usually sexual contact with a sore or an infectious symptom of syphilis. It can also be transmitted through pregnancy, and then there's some risk for transmission with blood. In our work, we really focus on sexual contacts as a source of transmission, though. When making a plan for treatment, it's important to know the stage of syphilis, and syphilis can be divided into a couple of different stages. One, it can be divided into early or late stage syphilis. Early is usually within a year, and early syphilis can be further divided into an incubation period, primary syphilis, secondary, or early latent. And all positive tests are reported to the MDH and that kind of creates the cascade of intervention and public health interventions for follow up. You can go to the next slide.

One way for us to stage syphilis in the early stages is to know more about the patient's symptoms. If a patient currently has symptoms or has a history of symptoms, then we can usually attribute it to a stage in the early stage of syphilis. Something that we might ask someone when interviewing someone who tested positive for syphilis is do you have a sore? Have you had any sores? The sore is important. It's an indication of a primary stage of syphilis. These sores are called chancres. They're a really infectious point of the syphilis infection, they're often pretty asymptomatic, not very painful, and they often go unnoticed, but you can read here that everyone will have this symptom, but because it can be anywhere you have sex (in the rectum or in the throat or inside a vagina) that it goes unnoticed. Another question we would ask our clients is have you noticed any rashes? Have you had any other sores, hair loss? These symptoms as listed in the secondary stage are important to stage someone at the secondary stage of infection. The rash is a real telltale sign that we want to know about, and we'll look at examples later on here, but there are parts of the secondary stage that are infectious, such as the sores called condyloma lata and mucus patches. Notable here is there are stages of being asymptomatic. One of those stages is the incubation period, and that can be from the point of contact with someone with syphilis up until three months. You may be asymptomatic and the bacteria may not have enough time to proliferate enough to test positive on a test. You're not infectious at this point. Also there could be a period of latency during the early stage of infection, which is also a not infectious point of the disease. So the early stages are followed by the late stages of syphilis infection, which are usually fairly asymptomatic except for complications that we'll get into later. But after this kind of progression, this timeline, then we would start to assume that someone might be in the late stage of infection. You can go to the next slide.

This is an example of that primary symptoms or called the chancre. It's one sore. There's a lot of bacteria residing in this area and if you're in contact with this, it's a high risk that you would contract syphilis. Again, the symptom will go away if infection is untreated and it often goes unnoticed. You can go to the next slide.

These are a couple of pictures to illustrate the rash of the secondary symptom or the... yeah, the secondary symptom of the rash. So this rash is unique in that it will show up on the palms of someone or the bottoms of their feet. It's bilateral, which means that it would be mirrored on each side of the body and it could also be on the trunk or clustered more around the genitals and it's not super itchy. It will go away without treatment and it's often attributed to an allergy or some other cause, but it's important to note when we're working with high-risk clients that if they report a new rash, don't know what it's from, it's on the hands and feet that it's worth being suspicious of a syphilis infection. You can go to the next slide.

So, syphilis is treatable, but it is an infection that needs to be take very seriously for a few different reasons. If we had to more time, we would get into the nitty gritty of all these, but congenital syphilis is super serious. We really want to prioritize the treatment of pregnant folks. There can be fatal implications for the fetus during pregnancy and for a baby born with congenital syphilis, there can be organ deformities and neurological problems. Sometimes folks can have serious effects on their neurological systems that can be in the early stages of infection or later on, but it can affect people's cognition. People can have loss of vision, hearing, or balance, and this would be something that would be sudden a sudden onset and if you suspected this of someone, it would be need for an emergency room evaluation as they would need IV antibiotics. You can go to the next slide.

So when thinking about testing this is kind of a general list of recommendations for routine testing or who would qualify. But for folks living outside, they're often oftentimes high risk at contracting syphilis, so anyone who's interested in engaging with STI screening, our team is gonna do it. We recommend three intervals, so we can catch new positives and then we also are gonna test anyone who is a contact to syphilis. You can go to the next slide.

We're gonna get in a little bit into the weeds here. The labs that we run for syphilis are oftentimes a little tricky to read and to interpret. There's lots of tests that can be done at the Red Door for our sexual health panel and

with the team we work with through Hennepin County – Health Care for the Homeless. We first run an RPR. And what an RPR looks for is not for the bacteria itself, but for the body's immune response to syphilis. It looks for the anti-body to fight the bacteria and it gives us this number. That's a ratio of how much of that antibody is in the system at a given time. This bell curve is here to illustrate that in the early stages of an infection, their body will ramp up an immune response and that titer is going to increase. However, if the infection is never treated, the body's response to the infection actually decreases. So if you have only one titer to go off of, let's say someone's titer comes back at 1:64 - it's hard to stage someone with just that information because they could be on the early side of infection or on the late side of infection. Something important to note too, is that because we're tracking the body's immune response, oftentimes our bodies, if we have a history of syphilis, they will always have that immune response. We will always produce that antibody. So people, if they're treated, will have often a low ratio of 1:1 or 1:2. So this titer is useful if we can track trends. We want to look for a trending up titer like for someone who has a history of syphilis, we would look for an increase or if someone who has previous testing, if that the titer increases, then we can say that they're at an early stage of infection. And then also we want to look at this titer to track it to go down if a person has been treated to make sure that their treatment is effective. So it's a tricky thing and it can be affected by a lot of a lot of factors, but it's a great piece of information that needs to be considered with a lot of other pieces of information for us to stage someone. Then just quickly the TPPA is also ran. That's a confirmatory test and that's another test that once it's positive, it will always be positive for the patient. All right, we can go to the next slide.

Just quickly, again, there's a testing window. When someone has been exposed to syphilis, it takes up to three months for their test to definitely come back positive. You could possibly have false negatives during that time. So it's just important to consider that, and then during that window period is a really important time for our team to find patient's contacts who are at risk of contracting the syphilis infection and to get them partner treatment at that time, so their disease never progresses into a full-on infection. You can go to the next slide.

Okay, so part of our disease investigation work is to again, stage the infection, so we know how to treat the patient. The early stage gets less antibiotics, so we're looking for evidence to stage someone at the early side of the infection and we're looking for a non- reactive test in the last year. In addition to the reactive test in the last year, if we have a couple of titers to compare and those titers are trending up, that would also indicate an early infection. We'd want to history of stageable symptoms or, if we can link someone to a partner with a new infection, then we can deduce that our original patient is a new infection. If we can't find out evidence to prove that, then the patient would be in an unknown duration and then late latent, it would be someone who has been infected over a year ago but has never been adequately treated. You can go to the next slide.

All right, so talking about treatment. The first line of treatment is bicillin and that is a form of penicillin in an injectable form and you can see a picture here. Usually one dose is two shots. They're big thick injections, one in each butt cheek. They're very painful. They're very unfun to get, they're unfun to give as a nurse. If you are in an early stage of infection, you would need just one series of bicillin injections. For late latent infection and unknown duration, we would need to do three sets of bicillin ideally seven days apart, so we would want to see someone for three weeks and there is some wiggle room if we go longer than seven days, but it's fairly unforgiving. If we go longer than seven days and we haven't been able to provide the patient with their next set of shots, oftentimes we have to restart the series of three in order to say that the patient's been adequately treated. Doxycycline is used if a patient is allergic to penicillin. It's an oral medication that's given twice daily for early infections it's given for fourteen days and for late infections are unknown duration, it's 28 days. It's really important to consider how difficult it is for any of us to take a pill twice daily. And for folks living outside with irregular schedules and belongings being lost, you know, it takes a lot of care coordination to make sure our clients are getting the oral medication if that's indicated. And then also it's worth noting that there is a penicillin shortage that we are likely looking at for the next year. Right now, our Hennepin County system at Red Door is able to prioritize the penicillin injections for our folks living outside at high risk and also folks who are pregnant as doxycycline is counter-indicated, but as we go forward in the next year, you might see doxycycline used in

other systems as a first line of treatment. All right, so that concludes my portion on syphilis 101. Ask many questions later, but I'm going to hand it off to Karmen who's going to go over some demographic numbers.

### Minnesota Department of Health Surveillance and Prevention Efforts

[Karmen Dippmann, she/her]

Thanks Lizzy, that was a great overview. Hard to cover syphilis in that short amount of time, you do a great job. Hi everyone, I am Karmen Dippmann. I'm the syphilis prevention coordinator at the Minnesota Department of Health and I use she/her pronounce. Next slide.

So we're first going to cover the surveillance that the state has on syphilis and go into some different demographic categories to really understand what syphilis is doing in Minnesota right now and who it's affecting. Next slide.

So this is just a chart of syphilis by stage of diagnosis in Minnesota over the last 10 years. So right now, the overall syphilis rate for all stages is 35.5 per 100,000, which is a 25% increase from 2021 and a 444% increase from a decade ago. The primary concern here, of course, is the rate of primary and secondary syphilis, which continues to increase, which is currently a 12.7 per 100,000, a 20% increase from 2021. As we're synthesizing the knowledge from Lizzy's presentation, that really goes to show that a lot of these infections are newer. Next slide.

Okay, so this is the state of Minnesota, obviously, and this just goes to show the concentration of syphilis by rate throughout each county in Minnesota. So the statewide rate right now is like I said, 12.7 per 100,000. So we see a concentration in the metro area, specifically our highest rates are in the city of Minneapolis and the city of St. Paul and you can see how that compares to the statewide rate. It's much higher. So I just like to, to be able to look at the spread here on a map and then we'll go to the next slide.

Here we can see primary and secondary syphilis rates by gender over the last 10 years. So typically, males do have the highest rate of primary and secondary syphilis at 18.3 cases per 1000,000, whereas in females it is 7.3 per 100,000. Next slide.

So this is age specific, excuse me, primary and secondary syphilis rates, but then we also have a broken down by gender with males on the left and females on the right. So, as noted in the last slide, males have higher rates of primary and secondary syphilis than females in every age group. The rate in males is two and a half times higher than females. The highest category we're seeing for both genders is the 30 to 39-year category. As you can see there's a concentration in the middle with our highest rates, which is concerning from the perspective of congenital syphilis like Lizzy was talking about, since for females, this is their child bearing years. So for the concentration to be highest in that age category is concerning. Next slide, please.

Here is a pie chart of primary and secondary syphilis cases by rate. So 44% of all primary and secondary syphilis cases are in the white, non- Hispanic community and then for Black non-Hispanic cases, that made up 29%. American Indian cases make up 9%, Hispanic cases at 13%, and then Asian/Pacific Islander at 3% and I think this spread is better shown by the next slide.

This chart, which is for primary and secondary syphilis rates by race and ethnicity. So this percentage is converted into a rate and I think that that shows how there's a disproportionate impact on some communities more than others. So I think it's really good to think of the data in this way and how our population breaks down and then how syphilis is disproportionately impacting certain populations. All right, we'll go to the next slide.

So one topic of interest here that we've been talking about and alluding to is syphilis among females and congenital syphilis in Minnesota. We'll go to the next slide.

So this is female early cases. The number of female early cases has increased dramatically over the last 10 years from only 18 cases in 2012 to now 345 in 2022. So this is obviously a very concerning increase and the more cases we have, it feels the more likely that we will have congenital syphilis cases among our female population. Next slide.

All right, so this is early syphilis infections in females by residence at diagnosis. A pretty evenly split here with again, a higher concentration though in the metro with about half in Minneapolis and St. Paul and the rest being in suburban Minnesota and greater Minnesota. Next slide, please.

All right, so this one, let me make sure I have this right. Oh, yes, okay. So as you can see, there are large disparities in women with syphilis, where 24% of all early syphilis cases in females are found in American Indian populations and 22% is found in the Black, African American population. So again, this is where we can see kind of disproportionate impact among different communities. I'll go to the next slide.

All right, so this is a graph of our congenital syphilis rates among infants in Minnesota. So the number and rate of congenital syphilis cases among infants has increased in 2022 compared to 2021. Overall the increase over the past five years - increased from 15.2 per 100,000 live birth in 2018 all the way up to 31.7 per 100,000 live births in 2022. So this obviously continues to grow with the exception of 2020. So this is something that we continue to watch at the health department and are very concerned about. The centers for disease control reported this fall that the number of infants born with syphilis has more than 200% increase in the past four years, and last year it did reach unfortunately a 20- year high. So something very concerning that we continue to monitor and work on. Next slide.

All right, so another topic of interest is syphilis among individuals experiencing homelessness, which you all are here today to learn about. So we'll go to the next slide.

So unfortunately, right now there is kind of a lack of information available to us that gives us really the true picture on how homelessness and syphilis intersect, but Hennepin County has been working on ways to assess this using the homeless management information system or HMIS. This system started back in 2003 and records individuals who have accessed services relating to homelessness and the state started sharing this information with local jurisdictions in 2016, where then Hennepin has since been analyzing this information with their constituents. So they're able to cross-reference their syphilis cases with people who are also listening in HMIS and so they were willing to share some of their preliminary data, so as you can see in 2022 about 34% of syphilis cases had an HMIS match in Hennepin County and we did some of the initial data for 2023 January to February. This trend appears to be continuing with about 40% of syphilis cases and had an HMIS match. So the more we learn the more we can see that there is also a disproportionate impact among folks experiencing homelessness. Great, we'll go to the next slide.

So now that we have a background on syphilis in Minnesota, syphilis 101, I'm gonna go into what our current prevention efforts at the health department are. So we'll go to the next slide.

And just for a quick background, we're called the prevention unit and we do work that, you know, is obviously specific to prevention of syphilis, but we have a lot of units within the STD/HIV section that are working actively on syphilis prevention efforts in a multitude of different ways, and I will be representing the different people in their different sections. So some of this work I do myself, some my colleagues do. So I'm gonna start off with our Duluth and Metro response teams. These were started to due to an increase in syphilis cases in both the Metro and Duluth. We started them last year in November and we now meet monthly and review our current

prevention activities and discuss how that aligns with what the data show. We also have done kind of a gap analysis and are working really hard to find interventions that are within our capacity and address what the data is showing is the root cause of some of these increases we've been seeing in syphilis in both the Metro and Duluth, and so we continue to meet monthly and discuss and work on making progress on all of those activities. Okay, next slide.

So as you saw in our data presentation, there has been a consistent increase in congenital syphilis cases in Minnesota and across the United States. So in 2018, Minnesota actually reached a threshold that necessitated us to develop a Congenital Syphilis Review board. We were very concerned once we met that 10-case threshold. This congenital syphilis review board team consists of internal and external content experts that review cases and discuss what went wrong or what could be improved, what were the barriers? What were the missed opportunities and how is it feasible to intervene? So we're hoping to gather data on these cases as we abstract them in order to really understand the landscape of what's happening and use those data to inform action steps and interventions that will aid in the prevention of future cases. Next slide.

Great, so next is rapid syphilis testing. I currently work in that programming that provides rapid syphilis tests. This is a way to create low barrier access to syphilis testing and connection to care. You know, this allows folks to not have to enter a clinic to get tested and the barriers that may entail. We work with over fifteen groups across the state that serve individuals who are disproportionately impacted by syphilis and that also may be motivated to not be seeking out clinical care, whether that be financial issue or transportation issues, things like that. So, if you or your organization is interested in providing this type of prevention method, please reach out to me with the email on the slide because we're happy to continue expanding that programming. Next slide.

We also have partner services, which is a great team that works hard to identify their partners and get them into care and thus adequately treated. They cover a variety of diseases including syphilis, so, you know, it's a multistep process, initially surveillance staff receive case reports and really, you know, enter the information into our surveillance system and also just interpret that information. And then after reviewing the patient information and treatment, it's determined if a disease intervention specialist, like what Lizzy does, is needed for a case follow up. If partner services, if determined that they're needed, they assign a case to a DIS supervisor or a lead worker who then assign out to DIs to work on the case. So there are many DIs across the state. I think Marcy who is one of the supervisors and is on the call today, if you have any questions for her, said that there's over 18 working throughout the state. We have some that are embedded in MDH, but also at Red Door, Clinic 555, Native American Community Clinic, Leech Lake Tribal Health and Bois Fort Tribal Health. These services play a key role in keeping people with a syphilis infection engaged in care while they finish treatment as well as identifying partners to avoid reinfections and also, you know, helps in maybe solving potential issues that are arising with receiving care. Next slide.

There is a lack of knowledge when it comes to syphilis both within some of our provider communities and within the general public, so we are always working on awareness and education in our everyday work, but we are really lucky right now to have money that is specifically allocated to three separate campaigns that will educate the public on the increase of syphilis and also mpox and HIV. So we're working really hard to make sure that we're doing our due diligence on making sure that the public is aware that syphilis is something they should have on their mind when they're going in for testing. Okay, next slide.

All right, clinical training. So we have a wonderful STD nurse specialist, Candy Hadsall, who provides clinical trainings. Throughout her many years of educating providers, she has actually provided over 50 trainings across the state of Minnesota. These trainings give a comprehensive overview of the current trends and state guidelines for screening testing and diagnosing in the state of Minnesota with these trainings. We can ensure that providers are up to date on the most current information. We have found that there's a lot to learn in these trainings. Candy is on the call with us today, if you have any questions for her, but you can also email her using

the email on the slide if you would like to get in touch with her about clinical trainings and the other services she provides.

And lastly, it's just kind of a technical assistance deal that kind of comes naturally to our work at MDH. Cindy Lind Livingston, and Nils Schwartz are our syphilis surveillance coordinators and process every case report of syphilis in the state, which is a really wild undertaking, and then after analyzing those reports, like I mentioned, they offer TA to make sure that there are new cases that the new cases of syphilis are getting reported are getting the best follow best possible follow- up care. So if you need assistance in diagnosing a client, you can always email them using the emails provided on the screen. Candy also is continuously fielding questions on how to proceed with different cases throughout the state. She works hard to make sure that providers are staging and diagnosing properly doing the correct follow up and making sure that course corrections are being made when needed, and then of course, you know, in the programming I do with testing, I work with community organizations out in the field who need assistance with troubleshooting for things like rapid testing. Next slide.

Yes, and that concludes my presentation and I will give up that over to the folks at Hennepin County. Thanks everyone.

### **Responding to Syphilis Among People Experiencing Homelessness**

[Judy Rosenburger, she/her]

Hello, my name's Judy Rosenburger and I am a DIS with the Hennepin County Red Door Clinic, also working with Lizzy and Madeline. So I'm gonna be talking to you today about our work responding to syphilis among people experiencing homelessness. Next slide.

Just to go in a little more about what a DIS is. It stands for Disease Intervention Specialist. You'll also hear it called Partner Services or Disease Investigation. Our funding comes from the CDC. It's a national program. There are DIs in every state and in Minnesota, we've already heard around 17 or 18. The Red Door Clinic has five DIS. Two of them are housed in the Red Door Clinic and see patients right there. The three of us are out in the field seeing patients as part of the outbreak response. Our service is confidential, free, and voluntary. That means that we don't share information with different patients about other patients. We keep things very confidential and voluntary which means people don't have to talk to us. They don't have to tell us all their inside information if they don't want to, but we set it up and create the relationships so that they are comfortable talking to us. We don't coerce anyone into sharing partner information. We work with mainly HIV and syphilis, but we also do gonorrhea and chlamydia. But just priority wise, it's more HIV and syphilis right now. Our work starts with the person who's infected and we meet with them. We do a disease intervention interview, which is where we do STI and HIV education. We talk about their symptoms, try to stage their infection, and then talk about the partners, either needle or sex partners, that may need intervention as well. Part of our work too is with that initially infected person, but also figuring out who's in their network, who are other people around them, that also need testing [and] who needs treatment. It's looking at the connections within that whole community. We are really lucky at Hennepin County to have access to a lot of information that helps us identify people. So if someone named someone, they only have a nickname or they don't exactly know their full name, we have ways within the county to try to figure out who that person is, and one of them is that system that HMIS system Karmen already talked about. Because that shows any time people touch a drop-in center or shelter or have housing case management, we can see them in there and find ways that we can reach them at those different locations and through those case managers. We also look at jail rosters and Facebook to try to identify people. A lot of our - I'd say the core value of our team - is to build relationships and support without judgment. So we could not get our work done if people had the impression that we were judging them for any of their life decisions. Many of our people that we work with are actively using drugs and we are not there to tell them that

they should not be, or that they should change anything about that. We offer harm reduction as a way to show that it's okay, you can talk to us about drug use. It's safe to talk to us about that. In our group, we meet patients where they're at. We literally go out in the field, we go to the street to encampments, shelters, into homes and apartments, and into jail to meet with people. Next slide.

Just a little history on this Hennepin County response. Back in January of 2020, MDH declared an HIV outbreak among people who inject drugs. So Hennepin County created this DRID response, which stands for drug related infectious disease, and so this partnership began with DIS and Healthcare for the Homeless. We joined forces to try to connect with those people who were named in the outbreak. Among that group also we found an increase in number of syphilis cases, so that just led to all of our work. We join them on outreach. We go while they're doing all kinds of other health related services for people. We get a chance to talk about infectious diseases and people get to know us out there and feel comfortable talking to us about these very personal things they have going on. Luckily, in 2022, MDH offered two new positions for our team. So that's when Madeline and Lizzy joined in, which has been great. Madeline is a resource specialist DIS. Of course, Lizzy is the RN. I just wanted to highlight some of the challenges that we have with our work. Obviously, the patients that we work with are not as likely to have phones, addresses, be accessing their MyChart. So it is a matter of going out and finding people face to face to get them information, sometimes. So that's definitely a barrier compared to work that we do in the clinic. People we work with in outreach have other life priorities, you know, they might have serious housing barriers. Many are involved with the justice system somehow. They may have warrants that they're trying to kind of stay under like, behind wraps about. Some people just need an ID. And they might have other pressing health concerns, like, for example, frostbite. So when we show up and we're like, "oh, you're a partner to syphilis" - that might not be top of their list, even though it is for us. So we need to work with the patient, let the patient lead the way on how we go about taking care of them. One big challenge is encampment clearings. We do a lot of work in encampments and the local governments start clearing the encampments at a certain point and when we have created a system with people to meet them there and follow up with people in encampments when they get cleared, it's really, really disruptive - that people lose their belongings, including medication, glasses, and documents that they might have worked really hard to get in their possession. Anyway, also remember Lizzy talking about the three sets of shots - if we're working with people and it's time for that second set of shots and the encampment is cleared, it can take a few days to track people down to get them those next shots. And so when the encampment is clear, we might lose out and then the person has to start over their series. Excuse me, and then of course, just basic rising syphilis is a challenge to our work because there's just more and more cases all the time, which just makes it all the more challenging. Some of the keys to our work that I wanted to highlight are: What makes the work go well is the consistent presence in the community. We show up at different shelters, we show up in the encampments on the street, go to the jail. By being a face that people start to recognize, it makes people trust us more and be more open to talking with us about these personal matters. Again, support without judgment. Patient leads the intervention. We are lucky enough to have harm reduction supplies available to us and also other kinds of supplies that we can give out and it just is a bridge to creating the relationship with the patient. Thankfully from MDH, we get gift card incentives and these are critical to our work because we give people gift cards for doing a blood draw, for getting their shots, for doing a DI interview - all these steps where, you know, the patient - that might not be top of their list, but if they can get a gift card, great, they'll do it, and it just creates more of a partnership with the patient and then there's a whole list of trusted community partnerships. So next slide.

I'll show you more about that. This is a slide, actually, yeah, thank you. This is just a visual to give you an idea that our work is not in a silo. We definitely need and work well with community partners and the most important community partner is our patient. The patient has to lead the way or this is not gonna work. So they're willing to meet with us. They're willing to get their blood drawn, they're willing to get shots and do all the things that we're asking them to do. So patient's number one, then you see, you know, there's Health Care for the Homeless, various clinics, actually, if you go to the next slide, please.

Let's see, hang on a second. I wanted to highlight one group, the Community Based Infectious Disease team. This, we called CBID in Hennepin County, and this is a group of nurses that work with us closely. They are available to kind of pop up when needed at if there's an outbreak or if we need to do a special testing event and so we work very closely with the CBID team in our work. Obviously Healthcare for the Homeless is out there doing so much with STI treatment. There's people that do housing and benefits work. Our crew gives out HIV medication, PrEP, they do tons of wound care and also mat (medication assisted therapy.) We work closely with community clinics too, so that we give patients a choice if you want to go to a clinic. Where would you like to go? Where are you most comfortable? So Native American Community Clinic, or NAAC, is an example of a clinic where a lot of our patients do like to go and in fact, there's a DIS named Paige who works at NAAC and we work very close. We have a lot of overlap with our patients, obviously given congenital syphilis in the age of a lot of the people, we need to be working with prenatal providers to make that seamless for patients. The other one that's curious is this Hennepin County Corrections part, which started really a couple of years ago as well, and it's become really helpful because although people don't want to be in jail, we get a lot done while people are in jail. We can see on the medical record when people go into jail and it gives us a chance to go visit with them. We can coordinate testing and treatment with the jail clinic and so that's been really helpful with our effort. Also through Hennepin County, there are people who do warrant resolution or setting up new court dates. So if people have these barriers because of the correction system, we have ways to work with them to try to get some of that. So it's not such a barrier. Maybe I'll hand it over to Madeline and she can talk about SSPs and our collaboration with MDH.

#### [Madeleine Possehl, she/her]

Yeah definitely, thanks Judy. My name's Madeleine Possehl and I'm a harm reduction resource specialist and DIS with Hennepin County Public Health Clinic in Red Door. Yeah, could you actually advance to the next slide, please.

So, like Judy was kind of mentioning, partnering with SSPS is really important. We're very grateful for the expansion of our project through MDH, all of that. But I do want to like, really take a minute to highlight how important harm reduction resources can be for accessing medical care. So just really quickly to define, I'm sure you all are familiar with harm reduction, but harm reductions have set of principles and practices aiming to reduce the harms of drug use. I had a mentor who would say harm reduction reduces the harm, right? It's that is what it is doing, but it's also a philosophy built on radical love. It's a set of beliefs with the goal of meeting people wherever they are and supporting individual and community goals along the way. Of utmost importance is harm reduction is non- coercive and non-judgmental, right? And so, especially important when it comes to service provision and access to resources and mindful of our, like, you know, complicated history in medicine and public health, but we do our best to operate from a decolonialist framework and offer a menu and variety of pathways and support patients self- directed goals for health care. And, you know, a focus of our work is on STIs and HIV, but especially in my role, a lot of what I'm doing is all of these kind of peripheral things, right? All of this extra coordination on this kind of short-term case management for folks emerging goals and needs. So it's, you know, safe to say, and it has been shown, access to syringe exchange curbs the spread of infectious disease as Judy highlighted. You know, we're in the midst of a few HIV outbreaks in our state, all among folks who inject drugs. So providing access to clean needles, clean works, all that kind of stuff is really important disease intervention. We ride around a lot and do a lot of outreach in encampments and syringe exchange in the field stuff like that, and it is a direct linkage point to screening, STI screening, to treatment out in the field, right? Folks often don't want to go into clinic, so we're bringing the nurses to them. It's also an access point to low barrier health care, right? Whether it's like hep c cure or wound care or, you know, the MUB. So suboxone and stuff like that, right? Those are common things that folks are seeking. And, you know, just to plug, again, that popping open a trunk of supplies is providing linkage to care and it's also providing disease - it's also disease intervention, you know. I can't tell you how many times I, you know, have done DIS interviews like in a parking lot, squatted down, packing a kit of safer use supplies, right? Like it's a moment to be able to have a conversation with somebody and we often piece things together, right? So it's not standardized in the same way

that a traditional DIS work is, and it's built off of relationships, right? If I remember the size of syringe that you use, I remember your name and ask you about your mom and how she is doing right, like that's relationship building and, and, you know, we work with some really, really wonderful participants, you know, and Judy mentioned this as well, but like, you know, being a trusted linkage point, not just around STIs, right? I often say to folks all I, you know, I do a lot of syringe exchange and a lot of care coordination, but the other thing that I also do right is provide partner services and so if there's somebody that, you know, could use a test or somebody that you shared needles with. So instead of being just identified in the community as somebody who's like seeking partners, right? That's an add- on to the rest of the stuff, a lot of times. And it's also a lot of a lot of times - this is how we find cases, right? Because we're offering screening while offering harm reduction supplies. So sometimes we can be ahead of even the case report because we have an electronic health record, so we can screen somebody, check their results, follow up with them, provide partner services, and continue to provide additional supports and harm reduction resources. You can go to the next slide.

So I want to talk a little bit about and provide a case presentation. And I, so this is a wonderful woman in her mid- to late twenties. She is of indigenous background, and again, we see an incredibly disproportionate disparity among black and indigenous people of color in regard to these infections. She was several months pregnant when I met her. She had not engaged in prenatal care and I want to pause here cause I think it's important to touch on the stigma that comes with that, right of like being a woman of color, a woman who injects drugs whose experienced long term homelessness, who is pregnant and has not engaged in prenatal care and, and I also just want to highlight that, like there's reasons why right? Like she is somebody who's experienced past medical trauma, generations of past medical trauma, right? She's experiencing systems failure. Her family members have experienced systems failure and they've all experienced generational trauma at the hands of the state, and this is a super complicated issue, right? But really just want to sit with that and speak to that because it's, she is a, you know. Yeah, it is not due to, like, neglect that she's not engaging in prenatal care, right? Engaging in clinical systems is really tough and, and for good reason. Her housing status, so she was doubled up with a few generations of family members as well as some like close community members. Several of them were known to outreach to Healthcare for the Homeless, known to myself. Yep, like I said, she's an injection drug user, the way that we heard about her or like got in contact with her: there's a delivery- based SSP that reached out to a nurse that we work with a lot with regarding some, like wound care needs that this person and a couple housemates had, and so we did a house call, right? Like myself and this nurse went to her house and the nurse was able to do a culture on the wounds, we had a provider on the phone to be able to do a visit that way, and then offered her STI screening, right? So did a- did a blood draw again, provided harm reduction resources and support supplies care coordination. I think we did a referral to primary care referral within that house, you know, it had reverberating effects, right to show up in that space and offer health care and meet people where they're at. In that visit too, we were able to like, ask about her prenatal care and like, she had two other kids. Where did she get care for them? And what was her experience there? And where would she like to go if she was gonna go and again, just highlighting that menu of services that are available of like local champions to hand folks off too. You can go to the next slide.

So her results came back and it, you know, again, we have the privilege of having this epic, this electronic health record system, so we were able to see her results pretty quickly and follow up really quickly. So her titer came back at a 1:32, her TPPA was positive. It's a confirmed syphilis infection. We went back to her, you know, back to her house, offered to bring treatment to her or if she wanted to come into the clinic, that was fine. She indicated that she'd like us to just come, see her at her place again. You know, I was able to do an interview after she got her first set of shots. She reported no symptoms and no symptoms on partners. So we were unable to stage the duration of the infection through an interview. So the plan then was three doses of penicillin over the course of three weeks, right? And so over the course of three weeks, we would come to her house. I think there was one time when we met her in the community and brought the medicine to her and each time was an opportunity for re-interview, right? To check in how she's doing, build that relationship. All of that. So right at the very end of her three sets of shots, she felt ready to go into prenatal care and so, again, like through many conversations

asking where she would like that care to happen and, you know, she indicated that she wanted culturally specific care. And, you know, we have relationships with NACC and so we were able to connect her back there and the first couple of times, the first couple of appointments you wanted me to attend with her. So we'd like sit in the lobby and eat snacks and, you know, joke around whatever and then. And like, stay in the visit with her, right? And then towards the end or like after a couple of visits, she was like, no, I'll have my cousin go with me or I got it, right? And so this like the brilliance of this warm handoff between service providers and the power that holds for connecting folks to care, right? That like, being a trusted bridge is just really, really important, so she was able to start on suboxone. She got, yeah, started on suboxone. She had family members get started on suboxone and primary care specialty care, right? Like I said, it has this like ripple effect and then she was able to make a delivery plan as well, and so I think, Oh, and the one bullet I didn't touch on here is the partner - she had four partners, but wanted to self- notify, so that happens a lot with the folks that we work with, and so the best thing that we can do a lot of times is continue to check in and counsel on reinfection risk and talk about congenital syphilis, especially in her circumstance, So... yeah, and then you can, you can go to the next slide.

And then just want to plug the importance of partnership, right? There were so many relationships that were necessary to coordinating, like, really trauma informed and patient-based care, right? Like of the utmost as the patient, her family members, her housemates, all of that kind of stuff. Her community of support and then like Native American Community Clinic who provides like, culturally competent and specific care and has a wonderful staff, right? We partner with their DIS, their nurses, their MD. Healthcare for the Homeless, maternal fetal health, CBID that Judy mentioned, these awesome nurses that are able to flex and slot in where necessary, and then the SSPS, right? This, this network of again, champions, right? Like network of warm handoff referrals is so important to our work and I recognize that there's a lot of folks from Greater Minnesota, at least that were registered, and it can feel - you know, I worked in Duluth for a while and it can feel like that things can be siloed or that those of networks may not exist yet, and this isn't something that we just dropped into. I mean, it takes a lot of relationship building, it takes a lot of community presence and community partnerships and identifying those champions of like, this is somebody that I want to introduce you to that will continue with your care, right? And there's a continuity of trust and care. So, it takes an incredible network of folks, and this was a good case that I thought we could highlight today. If you have any questions, feel free to drop them in the Q&A, otherwise I think we have a resource slide and that's about it.

#### [Josh Leopold, he/him]

Great, well, thank you Madeleine and Judy and Lizzy for your presentation, and so we have some time for questions if people want to either put it in the Q&A or Katie, I think there's a way for people to raise their hands, right, digitally, if they want to be unmuted to ask their questions as well.

#### [Katie Hill, she/her]

There should be a button in your participant panel where you can just raise your hand, if you would like to speak verbally and I can unmute you for that.

#### [Josh Leopold, he/him]

And while we wait I actually, I have a question. I was just curious, like, can you speak a little bit about if someone is pregnant and has syphilis like what the chances are that they will pass it on to the baby and then how that is affected by if they get treatment, and then when in the pregnancy they get treatment.

#### [Madeleine Possehl, she/her]

Judy, I would probably defer to you. I think the highest risk is within secondary is that true?

#### [Judy Windsperger, she/her]

That's what I've learned too, and I'm not an expert on congenital syphilis, but I believe when it's considered bacterimic or something, it's like systemic infection. That is the highest likelihood of time to spread it and from

what I understand, any time is a good time to treat it. You want to treat it as soon as you know, and so that was one thing, if any of you in the audience when you're working with people, if you have someone who's pregnant, the most important thing is to just see if you can get them tested for syphilis because that's how we're gonna find cases. Yeah, but as far as like, how late - I don't know if Marcie wants to talk to this, but it does get really kind of technical about when, but I know our nurse is at the red door, if someone comes in with syphilis and they're pregnant, they'll just treat them right away. No matter no questions, just get the treatment started.

#### [Marcie Babcock, she/her]

Yeah, hi everybody. This is Marcie and I will concur, I'm concurring with what Judy is saying, you know, as soon as you can get treatment, but definitely you want to treat at least 30 days before the delivery. Otherwise the baby would be considered to be a congenital syphilis case even in the absence of symptoms and probably treatment, empirical treatment would be recommended. So, you know, you want to avoid transmission. But you also want to avoid the trauma of having to go through 10 days of IV penicillin for your newborn.

#### [Katie Hill, she/her]

I did see that Marcie and Karmen answered a few questions in the chat previously. And it seems like there might be something that just came in. Thinking about the 35 to 40% of syphilis cases with records of accessing homelessness-related services according to the HMIS and ongoing HIV outbreak partly affecting people experiencing homelessness. Can you talk about how much co-infection you're seeing and how this affects and changes your work?

[Judy Rosenberger, she/her] Oh, sorry, go ahead.

[Karmen Dippmann, she/her]

No, you go ahead Judy. Why don't you talk about Hennepin County first.

#### [Judy Rosenberger, she/her]

I was just gonna ask Kelzee. Do you mean the coinfection with people who are in the outbreak and having syphilis? Yes. She said yes. I honestly, I don't have the numbers right in front of me to answer that Kelzee, but I think there's, we have definitely seen overlap where people that I know are part of the outbreak, are there are some cases as coming out of that group as well, but not all, and I think it pushes us to get people tested screen on a regular basis. Make sure they're in HIV care because if they are accessing HIV care, they're going to be regularly tested for syphilis as well, and so it's all kind of part of the bigger picture of connecting people to care, and I know the people who are Health Care for the Homeless nurses provide are out in the field. They are also testing them regularly, but also people that go to like Positive Care or their own provider, they're also getting tested regularly. So the care connection is the key.

#### [Karmen Dippmann, she/her]

Yeah, I can also add. I also don't know the specific numbers. Marcie, Candy jump in if you have any indication of that. What I will say is, you know, in the Duluth area, we have a syphilis and HIV declared outbreak and we do see co-infections within that outbreak. However, the new infections of syphilis that we're seeing are coinfected with people who have been living with HIV for a while. So it's not, it's a known status that they already are living with HIV and then they find out that they have acquired syphilis at some point. Nut at what I would also like to because you kind of got a couple tiers in there Kelzee with your question - is that that population in Duluth is the syphilis outbreak is not concentrated around people who are experiencing homelessness, so that, that is primarily within the men who have sex with men community up there. So Candy or Marcie, do you have anything to add, anything else to add about co-infection with syphilis and HIV?

#### [Marcie Babcock, she/her]

This is Marcie. I'll just comment in terms of the intervention is that we would provide a follow- up not only to the case that has newly acquired syphilis and an older HIV infection, but also to the contacts of that person and we would do follow up for both syphilis and HIV.

#### [Katie Hill, she/her]

Just a reminder that you can raise your hand, if you would like to speak or discuss anything.

#### [Judy Rosenberger, she/her]

I was just going to add something this is Judy. I was going to say, I'm not sure exactly who's all in the call, but I know I would be curious like statewide, if there's other groups that are doing outreach around syphilis out in the community or is it mostly clinic based? Because I think we all have things we can learn from each other, and so if there happens to be a group that's doing street kind of medicine - reach out to us or I don't know if you want to talk now, but it would be so great to compare notes and learn from each other.

#### [Madeleine Possehl, she/her]

Something else that I'll mention too, is a lot of the cases that we work are people who have been undertreated or inadequately treated or were lost to follow up at some point, right? Maybe within their early stage of infection and now a lot of time has passed and those folks require those three sets of bicillin, right? And that can be as I think Judy highlighted, just really challenging with the constant, like, sweeping of encampments and folks being relocated all the time, but that is, and many of these cases are also among women who could have babies, right? That have been under treated. Something else interesting that has come up in this work is folks who have a really old infection and then they also get a new infection and that's come up a couple times as well, where they'll report primary or secondary symptoms, but then they also have an old infection that has gone undertreated. So this is super tricky, but we do spend a lot of time with folks trying to coordinate these three sets of shots and there's so many challenges that go into it, but there's also like some really wonderful relationship building and, you know, coordination that can happen during that time as well.

#### [Judy Rosenberger, she/her]

I was just gonna add one more thing too. Sorry, I think something that I've learned from doing this work is just to remember that even though people are in these tough living situations, they still very genuinely care about their health and they want, they want connections and if they hear they have an infection, they want to get treated. So it's not like they're just blowing this all off. I don't want to ever give that impression because people really do care even though maybe the stereotype or from the outside is that they don't care, they actually really do, and so I think that's been something that has been pointed out to me over and over by people, you know, in these settings.

#### [Josh Leopold, he/him]

All right, I think we'll give everybody maybe 30 seconds if they have any, want to either raise their hand and ask the question. Otherwise I think we can, we can wrap up.

#### [Katie Hill, she/her]

I do want to remind everyone before you hop off to be on the lookout for an email in the next couple of days from MDH, it will include the follow-up survey, which will also lead you to a proof of attendance document if you fill it out. So please fill that out for us. We take all of your feedback and try to incorporate that into future trainings. So yeah, and then once we have this recording and the slides available, we will send another email out so that you can access those online.

#### [Josh Leopold, he/him]

Great, well thank you to all the presenters and to everyone who attended, and just be on the lookout for the

follow-up survey and then for the materials once we are ready to post them. All right, have a good rest of your afternoon, everybody.

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