Susanna Francis: Yes, sorry it always takes me a bit to... Do you let them in and then...? Okay.

Sarah: I will let them in.

Susanna Francis: Okay. Hi everyone! I am going to give it another 30 seconds, [00:00:30] to make sure everybody's able to get into the webinar. And then we'll start.

 (silence)

 Okay, I think we have everyone in now. My name's Susanna Francis, I'm one of [00:01:00] the co-directors for the STI research interest group at London School of Hygiene and Tropical Medicine. Welcome to this webinar, it's my pleasure. On the behalf of the STI interest group, which we call STIRIG, and the March Center and the LSHTM Zimbabwe collaboration, to introduce the first webinar in a series that we are calling 'A Rethink of Partner Notification Among Young People Diagnosed With STIs in Resource Constrained Settings'. The [00:01:30] overall objectives of the webinars are to learn about how ongoing and recent research in partner notification has been and could be applied and adapted to adolescents and young people in resource constrained settings, to identify key challenges and opportunities for partner notification in sexual health among adolescents and young people in resource constrained settings, to create a network of experts on partner notification and adolescent sexual health in the region, and to engage in a critical discussion about developing [00:02:00] contextually appropriate and acceptable strategies to control the spread of STIs among adolescents and young people.

 And this may involve developing alternative approaches to meet the needs of adolescents and young people for whom partner notification is not viable.

 So, it's my pleasure really to introduce Dr. Pooja Chitneni from Brigham and Women's Hospital in Boston, Massachusetts, for the first webinar in this series. Pooja is an infectious disease and internal [00:02:30] medicine physician, who works on STIs and HIV prevention. She has a particular interest in partner notification, and her research takes place in South Africa, and southwestern rural Uganda.

 After her talk, there'll be time for a discussion. And Pooja will be joined by two of our other co-investigators, Angela Kaida who is an associate professor in Global Health Epidemiology in the Faculty of Health Sciences at Simon Fraser University. And also, [00:03:00] by Mags Beksinska. Sorry, I hope I pronounced your name correctly, who is the research professor at the MatCH Research Unit and Department of OBS and GYN Faculty at [inaudible 00:03:12].

 So, welcome Pooja! And I'll let you take it from here.

Pooja: Thank you everyone so much. And thank you to STIRIG [00:03:30] for having me and Dr. Kaida and Dr. Beksinska here to present some of our work. So, as Susanna just said, I am an instructor in medicine in Boston, USA. And I'll be talking about partner notification and treatment, which I'm calling the overlooked steps to combating the STI epidemic.

 All [00:04:00] right. So, just to briefly outline today's talk and our discussion, we'll first be talking about STI partner notification and just touch on the background. Then we'll move onto our South African AYAZAZI study, where we looked at STI partner notification and treatment, amongst South African youth. And then we'll move onto our Ugandan Healthy Families PrEP study, where we similarly looked at STI partner notification and treatment among, this time, Ugandan women, [00:04:30] at risk for HIV exposure and desiring pregnancy.

 And then we'll wrap up with just a brief discussion on some of our formative qualitative work, looking at STI partner notification and this had not fully been analyzed yet, but you'll just get a little taste.

 So, I don't think I need to tell this group that the global STI [00:05:00] incidence is high and over the past few decades has continued to overall increase. And out of the 370 million new incidence cases in 2016, 86 million were in the Sub-Saharan African region. And within Sub-Saharan Africa, we'll be, again, focusing on two cities and two areas. The first is Durban, South Africa. I'll [00:05:30] highlight it by this little star on these maps. And the second is [inaudible 00:05:35] Uganda, highlighted by these stars.

 And so, the map on the left outlines the syphilis prevalence among women at their first antenatal clinic. And this stat is from 2015. And you can see, that both Uganda and South Africa are fairly dark blue, meaning that their prevalence [00:06:00] is quite high. For Uganda, anywhere from three up to nearly 15% prevalence in certain areas. And then, similarly, chlamydia also has a very high prevalence in both Eastern Africa as well as Southern Africa, ranging anywhere from 1.9% to 16.8% across the region.

 So, [00:06:30] the prevalence across the world is quite varied and evolving. And this is likely multifold, likely due to, again, increasing numbers. But also, partly in due to the differing way that we're starting to measure STIs. So, in much of the world, most people do not have access to laboratory diagnostics. And instead, they're diagnosed by what's called syndromic management. Syndromic [00:07:00] management is basically, when people are diagnosed by presenting for care because of signs and symptoms of STI. And so, a clinician then assesses symptoms through a history, and then physical signs through a physical examination. And then follows kind of a decision tree algorithm, outlined here, with an example of urethral [00:07:30] discharge syndrome in men. And so, that leads the clinician to a differential diagnosis, or a bucket of potential etiologies of the patient's symptoms and signs. And then also, corresponding treatment.

 And so, on the left here, we have the World Health Organization defined female syndromes, as well as the male syndromes. And I will say, that the vast majority [00:08:00] of STIs, they're asymptomatic. And so, for the longest time, we haven't really been able to definitively diagnose people. But all of that is changing with the rise of point of care testing. And so, this also has implications for how we think about partner treatment.

 And so, partner notification. I'm here to [00:08:30] argue that this is a crucial step in managing STI, the STI pandemic, epidemic, as well as managing and helping to support STI cure. And so, partner notification is widely accepted and thought to decrease STI reoccurrence. And we do know that prior STI predicts future STI. [00:09:00] But, there has not been a lot of data definitively demonstrating this, where I think explains some of our reticence and reluctance to really focus in on this issue. So, one of the landmark papers in this area was by Golden and colleagues from 2005, where they had a randomized control trial where they looked at expedited partner therapy, [00:09:30] which is basically when a clinician will provide medication for their patient or participant to take to their partners. Versus just standard partner notification. So, they looked at these methods on the effect of gonorrhea and chlamydia reoccurrence, between 21 and up to 133 days after initially treating people with STI. And they found [00:10:00] that people in the expedited partner therapy group had a significantly lower rate of having recurrent gonorrhea or chlamydia. And all of this, I will say, took place in Washington State in the United States.

 And then, another really elegant analysis was by [Madej 00:10:23] and colleagues, where they demonstrated that the legal status of expedited partner therapy [00:10:30] actually does affect chlamydia incidence rate in the US. So, back in 2000, very few states actually permitted expedited partner therapy. There were concerns by practitioners that there would be legal ramifications for prescribing medications to people that they had never actually seen clinically. But, all of this has changed and [00:11:00] in an analysis Madej from 2018, they looked at the incidence rate of chlamydia per year based off of whether expedited partner therapy was permissible in a state, potentially allowable, or prohibited. And so, they found that unfortunately the chlamydia incidence rate increased across the country in [00:11:30] all states, but it increased to a lower degree in the EPT permissible states. So, the incidence rate was only 14.1 in EPT permissible states compared to 17.5 in EPT prohibited states. And I will say, that in the US we have made some progress, because the map in [00:12:00] 2021, and I think this stat is actually from February, shows that all 46 states actually now permit the use of expedited partner therapy. And an additional four states will potentially allow expedited partner therapy, and zero states prohibit this method.

 And so, a little bit more about partner notification. Who needs it? When [00:12:30] do we do it? And so, these guidelines were taken from the Centers for Disease Control and Prevention. But basically, any sexual contact or any sexual partner of a person from the prior 60 up to 90 days prior to their diagnosis needs some kind of partner notification and/or evaluation and treatment. And there are many barriers [00:13:00] to this process unfortunately, both at the individual and the systemic level. So, individual barriers are quite varied and nicely outlined in a review by [inaudible 00:13:15] from 2019. But some of the individual barriers include stigma, fear of intimate partner violence, loss of economic support, and really just fear of losing [00:13:30] that connection with a partner.

 And then, some systemic barriers which is where we might have more of an effect is that there's an emphasis on patient autonomy. So, that's not a bad thing at all. But clinicians are prohibited by... And can only engage in partner notification to the extent that the patient or participant [00:14:00] will allow it or engage. Additionally, people can have multiple partners, and we still don't really know how to think about multiple partners in the context of partner notification. This study showed very mixed data, in regards to whether people are more likely to notify a primary partner or less likely. And then finally, there's a gross lack of resources dedicated to STI [00:14:30] partner notification.

 And so, this is a concept recommended by the World Health Organization as well as numerous ministries of health. So, there are three main methods that people will engage in partner notification by. And the first is provider based partner notification. And this strategy entails a provider reaching out to a partner [00:15:00] and again with the consent of their client, or participant, to reach out and notify the partner on the behalf of their patient or participant. And the next is patient based partner notification. Which is probably the most widely used notification strategy in the world, and this really does just rely on the patient notifying the partner themselves.

 And then the third, is contract referral, which is really [00:15:30] a combination of the prior two. So, this basically means that the provider and the patient or participant together will decide on the set deadline, which if the partner has not presented to the clinic for evaluation by that deadline, then the provider has permission to contact that partner.

 And then, there are a few tools we have in our arsenal as well for partner notification. [00:16:00] And the first, and again, the most common and widely used is partner notification cards. And so, this is really just any kind of communication indicating that the partner has been exposed to an STI and then what to do about that exposure. So, that could include presenting for care at a clinic, as well as what pharmacy to go to for medications.

 [00:16:30] Another widely used strategy which we discussed in Golden's study is expedited partner therapy. So, this is a strategy, again, where a clinician will provide their patient or participant with medication for that patient or participant to take to their partner. An offshoot of expedited partner therapy is accelerated partner therapy, [00:17:00] which I think is fairly unique to the UK. But this is basically very similar to expedited partner therapy, with the goal of having the partner receive medication. The only caveat here is that the clinician needs to communicate in some form with the partner. So, this could be over the phone or in person.

 And then finally, there's anonymous messaging applications. And so, with the rise of smartphones, [00:17:30] and the dissemination of these messaging applications, people are able to anonymously engage and anonymously notify partners through apps.

 And then, I will say that despite all of these methods and tools, aside from anonymous messaging applications, most of them have been around for decades but we still have gaps in STI partner [00:18:00] notification, which I will indicate and demonstrate below as well. And so, I think there's a need for increased behavioral interventions and interventions in general in this area.

 And so, here I just wanted to take a snippet out of the South African STI Guidelines. As you can see, [00:18:30] South African actually dedicates a full page to the treatment of partners, very beautifully so. But it really only focuses on the antibiotics. And doesn't really help clinicians or patients navigate the tricky waters of how do I actually communicate this information? And how do I get this partner care? And similarly, the Uganda [00:19:00] Partner STI Guidelines have even less information. There are a few lines here and there, talking about treating partners and abstaining from sex which is absolutely appropriate, but I think more guidance unfortunately is needed.

 And so, we're going to be talking about two specific populations today that I think are crucial for STI research and [00:19:30] partner notification. The first is adolescents. And of course, this population is important because they tend to have more STIs, for a multitude of reasons. Including just their lack of immunity and developing immunity, their lack of exposure to STIs, and then also their tendency to have more concurrent partners, as well as [00:20:00] a general, I think, universal feeling amongst youth that they are stigmatized in certain healthcare settings. And often feel unwelcome in healthcare settings.

 And then the second population we'll be looking at is pregnant women. And of course, this population is also important for STIs and partner notification, given that we know STIs cause the greatest morbidity and mortality [00:20:30] for babies and this can include disability, preterm birth, which in low and middle [inaudible 00:20:39] countries can be devastating. And then, also stillbirth, unfortunately. And so, the first study we'll be looking at is called AYAZAZI. And this means knowing themselves, in Zulu. And so this was a prospective cohort study, with the purpose of [00:21:00] assessing HIV risk factors, amongst South African youth.

 So, the secondary purpose of this study was to look at STI partner notification practices as well as the STI care cascade, and that's what we'll focus on here. And here you can see the AYAZAZI team members in Soweto, and they had a very youth focused and youth engaged framework. So, [00:21:30] they have some fun masks and boas and things to engage the youth.

 This study took place from 2015 to 2017. And the inclusion criteria for participation entailed youth people aged 16 to 24, living without HIV, and not participating in other HIV prevention studies. [00:22:00] The visits were at enrollment, three months, six months, and 12 months. And at each study visit, participants completed a questionnaire, and at enrollment, six and 12 months, participants also underwent syndromic screening. At enrollment and at 12 months, participants also underwent laboratory diagnostic screening. So, the STIs screened for included [00:22:30] chlamydia trachomatis, neisseria gonorrhea, mycoplasma genitalium, and trichomonas vaginalis, which were all screened via multiplex nucleic acid amplification.

 And at six months, there was an additional partner notification questionnaire, which was given only to Durban study participants. And so, for the purposes of this analysis, we will only focus on the Durban [00:23:00] participants, even though there was also a Soweto site. And the main partner notification tool used in this study was partner notification cards.

 And so, here we can see that there were a total of 220 participants in Durban. 132 of which were women, or girls. And 88 of which were men or boys. And so, the median age was 19. [00:23:30] And as we can see here, most participants had a sexual partner, but were not living with that partner. And then, you can see here the beginnings of a gender differential, as 24% of women reported zero lifetime sexual partners. Compared with only 6% of men. And much greater percentage of men, 88 reported two or more partners, [00:24:00] compared to 44% of women. And a minority used condoms, at last sex. And again, a minority reported STI treatment in the six months prior to study enrollment, but again, there was a bit of a gender differential here as well, with 21% of women reporting STI treatment in the six months prior to study enrollment, compared to 6% of men or boys.

 And [00:24:30] this is likely explained by the fact that women tend to acquire STIs at a higher rate than men, as well as likely due to the fact that women overall tend to have higher care engagement with healthcare settings.

 And so, again, we've broken down the STI prevalence by women and men, or girls and boys. And we have 21% of women with [00:25:00] one or more STIs compared to 11% of men. And the most prevalent STI was chlamydia, which is to be expected, followed by mycoplasma genitalium, neisseria gonorrhea, and trichomonas vaginalis. And here we have the STI care cascade. So, our STI care cascade was separated into those diagnosed with [00:25:30] STI, those who completed STI treatment, those who discussed STI with their partner, AKA partner notification. And those who self reported partner treatment. And so, this cascade can be a little confusing, but basically the dark red is indicating numbers as we're used to seeing them. So, we're looking at the N in each individual step, [00:26:00] divided by our overall N, 23. And then, in the light pink here, we show attrition at each step. So, this indicates the N at each individual stage, divided by the N from the prior stage, to better show the loss at each step.

 So, to walk us through, we started off with actually 37 participants at enrollment [00:26:30] with any STI. But for the R cascade, we begin with 23, because 23 is the number that actually completed the six month partner notification questionnaire. So, out of these 23 people, who were diagnosed with enrollment STI and completed the six months questionnaire, we have zero who did not finish treatment, so we have 100% who completed treatment, all 23. And then for our next step, this [00:27:00] is where we begin to see some loss. Six people did not notify their partner of STI. Which means, 74% or 17 did notify their partner. And then our next step, is partner treatment. And here is our biggest drop off. We had 11 people out of 17 not report partner treatment. So, that means only [00:27:30] 26% did report partner treatment.

 And so then, again, we looked at partner notification by sex as well. Given that we do know there are sexual... sex differences in engagement in care, and disclosure as well. We found that 87% of women notified their partner compared to only 50% of men. And again, we have another photo of our AYAZAZI [00:28:00] team members.

 And so, out of those six participants who said that they did not notify their partner, we had four major reasons. The first was fear of partner judgment. The second was, fear of being embarrassed. So really, stigma as the root cause for both of these issues. And then, another reason was that they were no longer with the partner, and so, logistically [00:28:30] did not communicate with them. And then finally, one person said that they actually did not know that they had an STI.

 So, what are our takeaways from AYAZAZI? We know that... Or we found that there's a high STI prevalence amongst youth, which is consistent with much of the literature across the world. We found that, along the STI care cascade, the highest attrition steps [00:29:00] were at partner notification and even more so at partner treatment. We saw that more female participants engaged in partner notification than male participants. And it's likely that the barriers that youth face to STI partner notification are different from the barriers that adults face. And correspondingly, the solutions will also likely differ. It's [00:29:30] probably less likely that adults will not realize that they didn't have an STI, because they've had so many more years of STI knowledge and overall knowledge and experience to learn from. And youth in general tend to have shorter, and more concurrent relationships compared to older people. So, the fact that one of our participants was unable to follow up with their partner [00:30:00] because they were no longer together, might be more of an issue with youth compared to older people.

 And then moving onto our Health Families PrEP study. This was a mixed methods prospective cohort study. And the purpose of this study was to assess PrEP uptake and durance. And then again, the secondary purpose for the purposes of this analysis was to assess STI partner notification [00:30:30] practices, and again, look at the STI care cascade. And participants were women at risk for HIV exposure, with personal or partner plans to have a child in the next year. And this is a photo of our Health Families PrEP team members.

 And so, study visits took place from 2018 to 2020. And again, inclusion criteria entailed women, being age [00:31:00] 18 to 40, not living with HIV, having a desire to conceive a child, and not currently being pregnant. And in a partnership with a man, living with, or a man that the woman thought might be living with HIV. And the procedures included study visits at enrollment, three, six and nine months. Participants completed [00:31:30] questionnaires at zero and nine months, they underwent syndromic screening at each visit, and they underwent STI laboratory diagnostic screening at enrollment and six months.

 And the STIs that we tested for were chlamydia trachomatis, neisseria gonorrhea, and trichomonas vaginalis, all done via gene expert nucleic acid amplification testing. [00:32:00] As well as treponema pallidum, or syphilis, through immunochromatographic testing, which was confirmed by rapid plasma region or RPR. And similar to our other study, there was a partner notification questionnaire at the six month time point. And the main tools that we used were partner notification cards, as well as expedited partner therapy.

 And so, here we had 94 participants [00:32:30] in this study. And 23 of which had STI and 71 without. And of course, the media age here was a bit higher than our prior study, it was 30. And as we would expect, women with STI were significantly younger than women without STI. The vast majority of participants were married or living as married. [00:33:00] And then a minority reported prior lifetime STI. And then, a minority also reported two or more sexual partners in the past month, but this... there was a significant difference with women with STI, 22% of women with STI having two or more sexual partners in the past month, compared to 4% of women without STI.

 [00:33:30] And then, condom use was also low, given that women wanted to have a child in the next year. And at six months, we can see that 81% of people followed up at the six month time point. And at six months, 17 women had STI compared to 64 women without STI. And again, our median [00:34:00] age has now increased a little bit because six months has passed, and we still see a similar difference with women with six month STI being significantly younger than women without a six month STI. And then, again, most women were married or living with their primary partner.

 And here though, we do see that women with six month STI were more likely to have prior STI. And this [00:34:30] was a significant difference, and as we'll see, likely a lot of these people had STI at enrollment in this same study. And then, again, a minority with two or more sexual partners in the past three months, and now even less women are using condoms because most of them actually took PrEP, so. That was great.

 All right. And then, we'll move onto showing [00:35:00] our prevalence and six month incidence of STIs amongst women. And so, we can see here that at enrollment, 24% of women had one or more STIs. And despite treating all women, 21% of women had six month incident STI. And again, you can see that chlamydia was the most common STI, followed by syphilis or treponema pallidum. Then [00:35:30] trichomonas vaginalis, and finally neisseria gonorrhea.

 And so, here we can see compare and contract a little bit, our enrollment STI versus our six month STI. And so, here we have all participants at enrollment, and this is 94 participants. Out of these, 23 had enrollment STI. And then out of these, 10 [00:36:00] did not have six month STI. So, we will call them cured. And then, we can also see that 12 out of 23 did in fact have STI at the six month time point. Half of the 12 or six people, or 26% had a recurrent or same STI pathogen. [00:36:30] So, one could posit that this is likely or potentially due to a lack of partner notification and treatment, and potentially that person or that dyad passing STIs back and forth.

 And then, another 26% or six participants had a different STI at six months, and of course four were lost to followup. And then out of women with no enrollment STI, we did have [00:37:00] seven people have new STI. So, all of this tells us that there are in fact a lot of STIs circulating in this population.

 And so, similar to the AZAZAZI study, we again have our STI care cascade. So again, we start with 23 people who were diagnosed with enrollment STI. 100% completed STI treatment. We lost [00:37:30] four, at six months. So only 19 of the 23 or 83% completed the six months questionnaire. And then again, we lost one person out of this number who did not notify their partner. So we have 78% of people who discussed STI with their partner, or notified their partner. And a 5% loss. And then, at the next step, we had [00:38:00] again our highest level of attrition. We had four people out of 18 not report STI partner treatment, for a total of 61% who did.

 And so, the lessons from Health Families, we saw a high number of circulating STIs amongst women actively trying to become pregnant. Again, we know that STIs are the worst for babies. And then [00:38:30] we saw that 23 female participants with enrollment STI, over half had a subsequent STI. And again, we saw this high six month STI incidence, despite using partner notification cards and expedited partner therapy, which are really some of the most robust tools that we have, unfortunately.

 So, I think we need more research to understand how these tools fit [00:39:00] into people's lives. And also, how best to support safe partner notification. And we likely need to tailor these methods and tools to people's individual situations and relationships.

 And so, despite very different contexts, despite looking at different age groups, despite looking at... In South Africa, we looked at both men and women, in Uganda we only looked at women, in South [00:39:30] Africa the research setting was a research center, whereas in Uganda we recruited from an HIV clinic. In South Africa, this was a very urban setting, whereas in Uganda it was very rural. And in South Africa, most people were not married, or living together as married. Whereas in Uganda, almost everyone was. Despite all of these differences, we saw very similar patterns [00:40:00] with less than ideal STI partner notification, and the biggest drop off at partner treatment.

 And so, in the interest of time, I'm going to skip over our qualitative work. This is not fully analyzed anyway, so more to come soon hopefully. But I did want to kind of wrap up and think about what we learned. So again, we saw [00:40:30] lower partner notification among youth, compared with our older cohort. But again, very different context, so it's very difficult to directly compare. We also saw lower partner notification among men, compared to women. And this is expected. And then we also saw that expedited partner therapy might increase partner STI treatment uptake, but actually some of our qualitative [00:41:00] work from Uganda demonstrated that most of our participants did not actually trust expedited partner therapy. And so, they feared that their partner would be suspicious, or wouldn't want to take medicine. And they also thought that they should be evaluated clinically, and tested before taking a treatment. And I will say, that that actually is in line with at least what the Centers for Disease Control [00:41:30] and Prevention recommends for men who have sex with men in the US, given that there are higher numbers of circulating STIs. So, in an ideal world, in low and middle income countries, any person or any partner of a person with STI would be evaluated and tested for all STIs. But again, we are a long way off there.

 And so, we still have continued gaps. There's a lack of STI partner notification [00:42:00] solutions overall. We have relied on the same methods and the same tools for decades. And we have not made much headway in this area. There is attrition at each STI care cascade step, and this is especially profound on the steps between partner notification and partner treatment. And then, we see a high STI recurrence, which is definitely connected to [00:42:30] the lack of STI partner notification.

 So, how do we overcome these gaps? And how do we move forward? So, STI education is one very obvious and easy method. And we saw that there are gaps in knowledge amongst certain populations, especially youth, who might not have robust STI or sexual and reproductive health education in their schools or in their lives, or with their parents. [00:43:00] And then, there are potential solutions, depending on the personal situation of each participant, as we're seeing from some of our qualitative work in Uganda some people like individual testing and counseling, some people like joint partner testing and counseling. And I think your preference for one or the other likely lies in the power relationship with that [00:43:30] partner, and that level of trust.

 And then of course, we need more stigma reduction for STIs. Stigma is pervasive, and really one of the root causes preventing people from partner notification.

 And then, I think one big reason for the lack of focus on STI partner notification is not only the fact that we didn't previously have STI diagnostics [00:44:00] in much of the world, but also that this relationship between partner notification and treatment and STI reoccurrence has been demonstrated but still a little murky, and if this could be elucidated and defined and demonstrated a little bit more clearly, there might be more interest in using... in trying to tackle the issue of partner notification.

 And I think we can have greater innovations [00:44:30] around STI partner notification, including developing greater behavioral interventions to help not only participants, patients, clients, help notify their partners, but also helping the healthcare system and clinicians support their patients and participants to notify. And then, especially in more of the middle income countries and amongst youth, [00:45:00] there likely is a role for app based partner notification, but again, I think it will depend on the context as well as the population.

 And so, these are some of my references, and I did want to thank so many people; especially my team of mentors and particularly my Ugandan mentor Dr. [inaudible 00:45:26] who passed away in late 2020. [00:45:30] Here's a beautiful picture of him with a ring pop that he dove into. He was very excited to eat that! And as well as our South African and Ugandan team members, and I'm sure there are many more people on here that I did not list. And thank you!

Susanna Francis: [00:46:00] Great, thank you so much Pooja, for a really great presentation. I mean, I think what was so wonderful about your presentation and so perfect for the first webinar is that you gave a really good overview of partner notification in general, so really appreciate that so much. And also, just wanted to say we really appreciate you presenting the data from Uganda, because I know that's unpublished. So, thank you for that as well.

 [00:46:30] And then lastly, just I was thinking as you were going through, both studies have low numbers. And it really illustrates how hard it is to do these studies. And really, we're often tacking on partner notification research onto other studies, because there isn't... there hasn't been the recognition, I think, of partner notification and its role, really, in reinfection [00:47:00] and a part of it being very difficult to get prevalence down. Especially with chlamydia, I think. So, thank you, thank you very much.

 I know we have already, several questions in the Q and A. These questions have been coming up throughout your presentation, and so they're questions about the presentation. I'm hoping that we can also move the discussion to really think about how to really think about partner notification in the context [00:47:30] of adolescents and young people in resource constrained settings, and thinking outside the box in this respect, thinking about the particular challenges and opportunities when we work with young people, and what is it about... makes it special to work with young people, and how we can use that as a starting place to really rethink how we think about partner notification.

 So, I'm hoping... I know there are some initial [00:48:00] questions, but I'm hoping that's where the discussion goes. So, I think we'll start with the Q and A. And Sarah's going to help in terms of reading out the questions. So, Pooja will be joined with Angela and Mags, to help answer the questions, and welcome.

Sarah: We've got two questions from [Rashida 00:48:24] and I think that she's very keen to speak, because I can see that she's also raised her hand. So, I'm just going to [00:48:30] unmute Rashida and perhaps allow her to ask her question live. Rashida... And I can get rid of my cat at the same time. Rashida, are you able to unmute yourself now?

Rashida: Sarah, do you want me to ask the same question in the Q and A? Because I had a different question... to the one in the Q and A.

Sarah: You put two questions in the Q and A.

Rashida: Yeah, sorry. Because I thought Q [00:49:00] and A did not restrict the number of questions.

Sarah: No, no. We're very welcoming of multiple questions from everyone. But I think that the one that Susanna is longing to hear discussion on, is [crosstalk 00:49:14] regarding... we keep repeating the same methods for partner notification, when we know they don't work in young people. Have you got any thoughts on how we can do partner notification differently?

Rashida: Yeah, and tacked onto that, [00:49:30] you put up a really nice slide of the strategies, and you put stigma reduction. I suppose my verbal question was, we haven't really done at all well with HIV in terms of stigma reduction. It's not a discreet intervention, and it keeps coming up time and time again when we talk about any STIs, including HIV. I'm not sure whether you've got an idea, or you could give us an idea of what effective stigma reduction strategy would be? I feel quite cynical about that. [00:50:00] Thanks!

Pooja: Yeah. It's so opportune that we're talking about stigma right now, because I'm actually taking part in an NIH [inaudible 00:50:12] funded stigma reduction training course. Which will be ending on Friday, but it's been ongoing for two weeks, and it's been very inspiring to see all the people, different people in the world thinking about stigma and all the different types of stigma.

 [00:50:30] It seems like an overwhelming problem, I absolutely agree. I think the field seems very disparate right now, and I think a lot of people are focused on trying to make sure that we're all talking the same language, that our definitions are the same, that our measures are the same. And then I think the biggest thing I feel like is really tailoring [00:51:00] each intervention to a specific location and population, so it really seems like a herculean task but I think youth in Durban could be different than youth in Soweto, and of course will be different than pregnant women in Uganda. And all of these people are going to have different concerns, so I think it really is just going to take starting with just a [00:51:30] needs assessment and working with communities to understand what matters most to them, and the strategies that work for them.

 And then, I think not trying to tear down the structures that people have in place. For instance, from our qualitative work in Uganda, this is still unpublished and not fully analyzed, but one interesting concept is that people [00:52:00] are using this story of... that STIs can be spread through toilets. And it's interesting, you hear it on the surface and you think, "Oh no, why are people spreading this misinformation?" But it actually really serves to decrease stigma. And it likely prevents gender based violence, ultimately. So, I don't... I'm just very inspired by [00:52:30] the fact that local people will get creative and figure out how to survive, and how to thrive. So, I think just trying to listen to our participants is the most important thing.

 I'm sorry, I don't have concrete ideas on stigma.

Sarah: Rashida, would you like to add anything to that?

Rashida: No, just to kind of [00:53:00] agree, I guess, that I think stigma reduction is a really big, big, big topic and I think it's a barrier to many, many different steps of either the HIV treatment cascade or the STI testing and treatment cascade.

Susanna Francis: Angela, did you want to add anything to that?

Angela: Yeah. Maybe can I just say one thing here, and I'll also try to respond to Constance's great comment also in the Q and A, [00:53:30] where she's saying that she's surprised and impressed by the proportion of participants who did tell their partners in both studies. And I just love that question, because I agree. Our numbers are small and yes we have attrition, I'll speak specifically about the AYAZAZI study. But I similarly was impressed in that cascade that we did have quite a few of these young people notifying their partners through the methods that we used. And I just wanted to add that the AYAZAZI study [00:54:00] really invested in a youth engagement approach, so all through the study we hired young people to be part of the study, the interviewers are people from the communities where we were recruiting from. And there was a real investment in making the space youth friendly. We had wifi, and we had a PlayStation. And we had magazine and we had these sorts of things.

 So, to get at Constance's question about social desirability [00:54:30] bias and reporting of partner notification. I expect that there probably was some social desirability bias. Saying, "Yes, of course I told my partner!" But I also think that because this was a longitudinal study with very high retention, 95% retention over 18 months, and with that investment, I actually do think that's there's a different kind of bias and that these are participants that were very engaged in this study, and very... I think accountable to our study team in a different way. [00:55:00] And so, I think that that actually does partly address Rashida's question about stigma, and the kinds of environments that we can create for young people where we don't just talk about STIs, but we talk about sexuality more broadly, sexual health more broadly. Sex positive approaches more broadly, and the differences that that might be able to make. Thank you.

Sarah: Mags, I can see that you've got your hand up.

Mags: Yes, I was just going to respond also to Angela's comments, that in the AYAZAZI study, [00:55:30] the women were really... the female participants who had to tell their male partners got a lot of support. And I think that's probably what was needed to help them speak to their partners. But the men in the study also, I think they really appreciated the care in the study, because it's something that they probably didn't get elsewhere. And I know we're in the same building as an extremely large sexual reproductive health clinic, and they really struggle to get any male partners in to be treated, [00:56:00] once they've treated the female. And I think there's two issues.

 So A, the woman has to go home, has to go back and speak to the partner first. But then, they have to have the courage to come into a very female orientated clinic, where almost everyone is female, all the participants are, all the patients are female. The nurses are female. And it's really tough for them.

 I know there's an ideal clinic initiative going on here where there's an emphasis on actually giving targets [00:56:30] to see men for all sorts of reasons. And trying to bring men in for perhaps non sexual health related services, and then to sort of bring the conversation around to sexual health and HIV testing. So, that's one way of tackling it. But it's been a problem for a long time. So, they give out these cards downstairs and they rarely ever come back. And also, the male partner may choose to go somewhere else, or he may [00:57:00] choose to go to a private GP. And then, the district health information system never links those couples. So, the woman that gets treatment will never be linked with the male that gets treatment, so the successes, if there is any, is really very hard to measure.

 And also, this issue that was mentioned with partners not living together. So, nearly in all our studies women who are in their 20s and 30s are not married, they're not living with their partners, so [00:57:30] that adds another layer of difficulty I think in getting a conversation going and being in a comfortable relationship where you can [inaudible 00:57:39] be able to discuss these things.

Sarah: Carrie, I can see that you've had your hand up for a while. And you've just posted your question in the chat box, but I wondered if you wanted to ask your question in person?

Carrie: Thanks very much, that was a [00:58:00] really lovely presentation. Really, really lovely to see. It wasn't really a question, but it was more to do with the stigma aspect of partner notification and your interest in that. We've been working on an intervention for some time now, which aims to reduce stigma around partner notification in young people, 16 to 24 year olds in the UK, using educational [00:58:30] and behavioral support approaches. So, really just to flag up, so in our qualitative work, young people said the intervention was successful in reducing stigma and that enabled them to tell partners sooner and more clearly and calmly. And some people said they told partners they wouldn't have otherwise done.

 So, we've just completed a randomized control trial with over 6,000 participants. And I'm really sorry [00:59:00] that I can't tell you the results, because I'm absolutely bursting to tell you, but those results will be out later this year and I'll email you when they're out, so that you get to see them. Because I think you'll find them really interesting, and they'll speak to perhaps some of the work that you're undertaking now and moving forward from these projects. So, yeah, really interesting talk. [00:59:30] Thank you!

Pooja: Oh my gosh, that sounds amazing Carrie. I would love to see that. Wow! 6,000, that's amazing. That's [inaudible 00:59:39] I'm very impressed.

Carrie: It's quite a lot, it's been a big trial.

Susanna Francis: We're hoping, Carrie, that you will also do a webinar for...

Carrie: Yeah, yeah. Very happy to. But I think the issue around stigma's really fascinating and a bit important.

Sarah: [01:00:00] Mags, you've got your hand up. Did you want to comment on that? Your on mute.

Mags: I was... I can't take my hand down.

Sarah: There you go, I've done it for you. I'm very aware that we're at 4:00 and we're supposed to end there. I don't know if the panelists have got another few minutes just to address another couple of questions? Or do you have to be [01:00:30] elsewhere?

Pooja: I'm free.

Sarah: Okay. There's another one from Rashida. Regarding expedited partner therapy, it becomes challenging as providers are not legally allowed to give treatment for another person to an index. Any thoughts on this?

Pooja: Yeah. In preparing for this chat, I realized I think that seems to be a specifically UK issue. And it was [01:01:00] really interesting to see how things have changed in the US. In 2000, I think only two or four states in the US allowed partner notification or had an EPT permissible label. And that is not up to 46 as we saw on the map. And I think a lot of that was advocacy and research, on [01:01:30] the part of just really esteemed researchers.

 So, I think it could change potentially, and I'm not familiar with the legal system in the UK, obviously. But there is potential. It really doesn't seem to be bad outcomes from providers, giving EPT to partners, at least in the States.

Sarah: Mags, did you [01:02:00] have anything to add on that? Because I see that in the chat box you said that you would like to answer that.

Mags: Yeah. So, I think in South Africa, the issue is it's quite difficult even with for instance male partners who come in for emergency contraception from clinics. They won't be given it. And it's this... I think they would want to try and get the male partner into the clinic to counsel them about other issues, maybe have an HIV test. So, we've had pilots [01:02:30] in this country of treatment given to the female partner. But I can't see it ever happening. I just think the health services wouldn't want it to go that way. But maybe it'll change, things might change. But I think they would also try and counsel the woman to still bring the partner in if possible. Because they wouldn't be necessarily... you know, they would want to make sure that the treatment worked.

Sarah: [01:03:00] Just to say that somebody has asked in the Q and A if a recording of this will be made available, and we have been recording it. So, as soon as we've done the transcriptions for it we will put it on our website and Tweet it.

 Perhaps just one final question, from Emily. Should different considerations be made for cases of drug resistant STIs when giving partner notification?

Pooja: Yeah, I think that's [01:03:30] an excellent point that we really didn't address here. And so, I think probably EPT is not the right answer. And again, to Mags' point, in settings where there's an incredibly high prevalence of STIs, or high circulating resistance, that will need extra consideration and care. And I think it really depends on the setting and our ability [01:04:00] to actually use laboratory diagnostics. But partner notification in general just becomes that much more crucial and important, in settings where there is... for instance, high gonorrhea, antimicrobial resistance. And then, probably less of an emphasis on EPT.

Sarah: [01:04:30] I think that was the last question, but I'm just going to squeeze in this very quick one. I wonder if the accessibility of partner notification is considered in the partner notification studies, as people with disabilities have previously been found to be at higher risk of STIs?

Pooja: I'm sorry, could you repeat the question?

Sarah: It was somebody wondering if the accessibility of partner notification had been considered, because people with disabilities have previously been found to have [01:05:00] a higher risk of STIs.

Pooja: That is actually an area I'm not familiar with. That's such a fascinating question. I will definitely need to look into that further.

Sarah: Okay, over to you Susanna to wrap up, I think.

Susanna Francis: Thank you! Thank you for everyone who stayed past the hour. It was a great talk. [01:05:30] And a great discussion and a good way, I think, to kick off this series to kind of really have a rethink about partner notification and our giving patients [inaudible 01:05:44] do we keep doing the same old same old? Or, can we put our heads together to really think about how partner notification... the aims of partner notification, which is really about [01:06:00] long lasting cure and to decrease reinfection, and then case finding for partners who are asymptomatic, and breaking chains of transmission. And is there a way to meet those aims, doing something that is more realistic for young people?

 So, I think this is a great kick off webinar. Thank you so much to Pooja, Angela and Mags. [01:06:30] And hope you will join us again, to listen to other webinars in this series. And we're trying to develop really a group of people, a network, who are all very much interested in this issue of partner notification. Thank you! And thanks to everyone who joined us today.

Sarah: Thanks everyone.

Pooja: Thank you so much.

Angela: [01:07:00] Thanks Susanna, thanks Sarah.