HEAL Preventing Opioid Use Disorder Research Program: Social Network Webinar Transcript
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Time marker Hour:Minute:Second

00:00:00 [Dialogue begins at 1 minute 25 seconds.]

00:01:25 >> [Sazid Khan] I hope everybody's doing well today. Thank you for joining us. We'll go and get started in another minute. We'll give folks another minute or two to hop on... ...and then we'll get going, but thank you all for being here.

00:01:39 [Dialogue resumes at 2 minutes 34 seconds]

00:02:34 >> [Sazid Khan] All right, I think we can go ahead and get started. Welcome everybody. Thank you all for joining us today. My name is Sazid Khan. I am your moderator for the session today. For those—you know, just to make sure you're on the right spot, this is the HEAL Preventing Opioid Use Disorder Research Program Social Network webinar on behalf of the NIH HEAL Initiative. Thank you all for being here again. We have a great webinar for you all today. We have some great experts in the field of social network research here, and we are excited to bring you this webinar. It will be a very foundational webinar, and we think it'll provide some gaps in literature that's out there, as well as just good discussion hopefully, and good introduction to some of the research projects that are utilizing social network research and novel, innovative ways that they're going about it. So that being said, let me go ahead and start sharing my slides, and get this going. All right. As I mentioned, today's HEAL Preventing Opioid Use Disorder Research Program Social Network Webinar on behalf of the NIH HEAL Initiative. First, to begin with, we have the statement of support. This presentation is supported by the National Institutes of Health through the Helping to End Addiction Long-term Initiative or the NIH HEAL Initiative as part of the HEAL Preventing Opioid Use Disorder program. The authors gratefully acknowledge the collaboration and contribution of the National Institute on Drug Abuse and support from the following awards for each of the research projects that are involved here today. And the content of this presentation is solely the responsibility of the authors and does not necessarily represent the official views of the NIH Initiative, NIDA, or participating institutions and organizations. Again, we thank the NIH and NIDA for its support on this important work that we're doing. All right, so the webinar breakdown for today. First we'll have a quick little discussion of what NIH Preventing Opioid Use Disorder program is, for those who have never heard of it or are new to this, some basics of Social Network Research and I'll then introduce the great presenters and then hand it off to them to take on the bulk of the presentation. Then we will come back for a Q&A with the audience. Also note there is a Q&A chat box that you are welcome to submit your questions into. I'll be moderating, I'll be monitoring the chat as well as the Q&A—for that Q&A with the audience, with the panelists. So if you have any questions, please feel free to submit them to the Q&A box and we will make sure we get to them towards the end of this session. All right, so we go at the NIH HEAL Initiative. For those who have never heard of it, it's the scientific solutions to accelerate the development of prevention strategies and safe, nonaddictive, innovative treatments for opioid misuse, addiction, and pain. Over 30 research programs—you see the different kind of branches of it, from Clinical Research to Translating Research into Practice, Prevention, Enhanced Outcomes, Novel Medications, as well as Pre-Clinical Translational Research in Pain Management. So it really is a very broad scope and really fascinating, the kind of—the range of this

initiative, and just how it's covering so many different aspects of this epidemic and crisis. As I mentioned, this specifically—the HEAL Preventing Opioid Use Disorder program looks at Risk Identification, Social Determinants, Health Equities, and Policies, Intervention Development, as well as Dissemination, Implementation, the Scaling up of Programs, and Sustainment. Some of the cross-cutting focuses involve increased access to prevention services for underserved populations, community- and systems-engaged research, and intervening during periods of vulnerability for opioid misuse. The aim of the HEAL Prevention Cooperative specifically is to develop and test 10 interventions to prevent opioid misuse and OUD amongst young people ages 15 to 30. Now that we've spoken a little bit of what the initiative is, let's get more into the focus of what today's topic is. That's with Social Network Analysis and Research. So first, what is Social Network Analysis? If this is your first time hearing of the term, if you're interested but hadn't really known much about it, it is—so there's a number of different definitions for it, but a couple I thought kind of stood out to us was, "A research method developed primarily in sociology and communication science, "focusing on patterns of relations among people and among groups such as organizations and states." Or another definition is, "Studies the behavior of the individual at the micro level, "the pattern of relationships (network structure) at the macro level, "and the interactions between the two." So you can see there are different ways of going about it. But these are just some of the several definitions on there about what Social Network Analysis is. Now... as some common misconceptions and some comparison that we wanted to bring to light was social network vs. social media. When someone hears "social network," they think of the movie—like, the Facebook movie, right? "The Social Network," right, with things like social media and like, things like that. But there are some differences, right? Social media—forms of electronic communication, web sites for social networking and microblogging, users create online communities to share information, ideas, messages, etc. Whereas a social network can use social media to maintain and build social networks but really is a creation and maintenance of personal and business relationships, right? So you can hear the nuances—while social network can encompass social media, but there's more to it than just communicating in those regards, right? There's more to it, and that's kind of what we wanted to kind of—and I'm sure that the presenters will discuss more about the focusing on social network. But these are just some of the differences there are between the two that we hear constantly, right? Some of the misconceptions that, one is that they're both the same, right? So I was wanting to clear that up before we get started. And just so you know, these slides will be made available after the webinar at a later date so these will be available for you to review afterwards of course. But enough of hearing me talk, it's time for us to get to our webinar presenters, the experts in the field. I'll first introduce them and then I'll hand it off to them. So first we have Dr. David Kennedy. He's a senior social behavioral scientist at the RAND Corporation. Trained as a medical anthropologist, he holds a PhD in Cultural Anthropology from the University of Florida, conducted research on intersectional culture, social networks, and health throughout his career. As a methodologist, he specializes in development of innovative research that is designed to integrate qualitative and quantitative methodologies and methods for collecting and analyzing personal network data. So with that as our first speaker today we then have Dr. Jerreed Ivanich, who as member of Alaska's—I'm going to butcher this, so apologies in advance—Metlakatla Indian Community—please correct me if I'm wrong, Jerreed—is dedicated to health research for North America Indigenous populations. Dr. Ivanich is an Assistant Professor at the Colorado School of Public Health Center for American Indian and Alaska Native Health and an Adjunct Assistant Professor at the Johns Hopkins Bloomberg School of Public Health, Center for American Indian Health. His work meets at the intersection of prevention science, social network analysis, and adolescent health to reduce substance use and suicide in Tribal communities. I also have Dr. Jodi Ford, who is a Professor, Director of the Stress Science Lab and Assistant Director of the Martha S. Pitzer Center for Women, Children, and Youth in the College of Nursing at the Ohio State University. She investigates the interplay between the social, spatial, and biological determinants of adolescent youth, adult health, and their contribution to

the social inequities in health. And finally, but certainly not least, we have Dr. Rose Hardy, who is a Health Services Researcher and Data Scientist at the Nationwide Children's Hospital. She focuses on pediatric specialty care with an emphasis on delivery in rural communities and how social determinants of health impact that care. Her social network analysis work has assessed how relationships impact social needs and network outcomes. She has constructed network data from large administrative databases to understand how care systems influence health outcomes. As you can tell, we have a very impressive panel of experts today. Without further ado, we will go ahead, I will turn it over next to Dr. David Kennedy. Take it away David.

00:12:13 >> [David Kennedy] Okay, you can hear me now right?

00:12:16 >> [Sazid Khan] Yes, yes. You're good.

00:12:19 >> [David Kennedy] I had to find that un-mute button. Hi, so hello everybody, I'm going to talk about a project on the Social Networks of Non-Reservation American Indian / Alaska Native Emerging Adults. This is a HEAL Initiative Project funded through NIDA and it's run out of RAND and also UCLA. And so the project is called Traditions and Connections for Urban Native Americans, TACUNA for short. It's a workshop-based intervention, targeting prevention of opioid use and other drugs and alcohol use. It involves culturally centered programming combined with motivational interviewing in group workshops. There is a focus on traditional practices, so participants engage in traditional practices during workshops, and there's a social network influence component and that's what I'll be talking about today. So this is a randomized controlled trial with emerging adults age 18 to 25, and they live in urban areas and we've received an administrative supplement from NIDA to do additional analysis of the network data, and this is important because there is not a lot published on the social networks of American Indian / Alaska Native emerging adults living in urban areas. There are studies of AIN adolescents and those on reservations but not much for the age group and living in urban areas. And up until this project, there have been no evidence-based, culturally appropriate, culturally tailored prevention programs or social network interventions for emerging adult AIN living in urban areas. And we do expect that social networks play a very important part in their lives. Emerging adulthood is a developmental stage with some important social changes. There's also intergenerational historical trauma so that's transmitted through social networks. And most American Indian / Alaska Natives live outside of reservation tribal lands according to the most recent census, so living in urban areas there's social and geographic fragmentation and also limited opportunities for cultural involvement. So this project is from the parent project which is an intervention and part of the intervention, we're collecting network data and showing to participants and they're discussing it during workshops. I'll talk a little bit about that at the end, but first I'll talk about the analysis we're doing as part of the supplement. The first 150 participants that were enrolled in the study—we're continuing to enroll now, but we're analyzing the first 150. Our primary aim is to describe these networks. So, the network composition—basically who is in the network and the structure, so how they are connected with each other. And then we're using these measures to test for associations with health outcomes. So the participants—the 150 that we're analyzing—are around 22 years old, most of them are female, and about half were of sexual/gender minority identity, and of the 30% of their mothers, the participants' mothers, had high school education or less, and they're from all over the United States. They're from 28 different states. This is a virtual workshop so they're logging in from wherever they are. And so there's 28 different states, and they answer two different questions. They said on average 81% of their life they've lived in urban areas and 22% in reservation tribal lands. They don't add up to 100%, but these are just estimates from their point of view. And there's a lot of interconnections between their urban areas and also the reservation areas: 14% were born on reservation lands, 21% speak their tribal language with their family

at home, and around two-thirds have traveled to reservation tribal lands in the past year. Sixty percent have done this more than 31 days according to when they filled out the survey. So what we've done—what we're analyzing is egocentric networks and there are different components of an egocentric network. One is just questions, just regular survey questions about the respondent, and that's called "ego" in egocentric network terminology. And then there's a name generator which is just a statement asking people to think about different types of people in their lives and to name them, to list them. So we asked them to name the 15 people, these are called "alters" in egocentric network terminology, and then there's questions called name interpreter questions. So these are just questions about each of the people in the network, so such as, do they have AIN identity, do they engage in traditional practices and substance use, and there's also questions about the relationship between the ego and the alter, such as do they provide support, do you get into arguments with them, and from all these questions we produce counts and proportions for every single person's network. And then we also ask questions about the connections among all those people so every unique relationship we ask, do they know each other and have they interacted with each other in the past 3 months. So this is a diagram from one participant, and each one of the circles is a person in the network, and each circle that is connected with a line that means those two people know each other, and if it's a thicker line, they've interacted in the past 3 months according to the participant. And so there's an algorithm that places these circles in a way that kind of makes sense intuitively, so who is clustered with who. The circles are larger and darker if they have more connections. So you really literally count up the lines into each one of these circles and that's how big and dark it is. And there's a—it also separates out into different groups. So there are three to the right, that's one group. And then the big cluster on the left, that's a separate group. The ego is not part of this network, it's just the people that they're talking about, so the ego is not represented as a circle. So behind the scenes, behind the scenes of this picture, there are numbers. So, for example, there are two groups, so those are called components. So there are two separate components in this in this network. And also there's a measure of how densely connected everyone Is. So the measure is, density is .45, so that's like 45% of the connections that could be there are there. So that's one network. These two histograms show sort of the distribution of those two measures across the entire sample. So count up the number of people who are within a particular range of those measures. And as you can see, there's a vertical line in the middle that's dashed, and it's .45, so that's the mean. And so that—the network I just showed you had a mean of .45 so it's directly on the average. And then there's sort of a normal distribution to lower and higher amounts of that, and as far as components go, it's skewed towards only having one network, so close to 80 of the networks—the participants—had only one connection, and on average there was 2.13, so the network I just showed you was roughly average. And as far as showing other examples, these are two examples at the top here of really disconnected networks. So they're low density and they have a lot of different components. So these both have lower than average density and a lot of different separate groups. The one on the right has a lot of different network members who don't know anyone else, so those are called isolates. And in contrast these are—at the bottom—there are two examples of networks that are really highly connected. And they're both over the mean and density and they have a lot of connections. And one interconnected group on the left and two separate groups that are completely connected on within the groups. So these histograms show the network composition—so, who is in the network. So the family—there are on average 35% of the people named in networks are family members. And to the right is friends. So on average, 45% of the people named in networks are friends, and those are the top two categories. And we also ask other questions about the alters, like how old they were. Around 59% on average are the same age as the participant, with others either older or younger. And then we also asked them where they lived in relationship to the participant, and the top category was those living more than 50 miles away. So roughly 35% on average across all the different networks lived 50 miles away from the participant. So that kind of goes back to that disconnected experience of living in urban

and being connected with rural areas, the tribal reservation areas. This histogram shows the counts—the proportions of those who are AI/AN identity and engage in traditional practices. So around 25% across all the different networks are these large green circles. The diagram to the left is an example of a network with no members of the network who engage in traditional practices. And the one down at the bottom is a little more than average, 40%, so those are those large green circles. And then the right is one where 73%, well over average, engage in traditional practices. And there are only three members of the network who do not identify as American Indian / Alaska Native. Another measure that we used was engagement in alcohol and drug use. So we looked at heavy alcohol and drug use—so not just any kind of alcohol drinking, we're looking at heavy use. And so around 34% on average across all the different networks engaged in heavy alcohol and drug use, and the network diagram on the left is an example of one with very very low, only one person, 7%. The one down at the bottom is an example of one around the average, 27%, there are four people who engage in—who are likely to use drugs and alcohol heavily. And to the right, there is one network where there's 87%, so nearly everybody in the network engages in heavy alcohol or drug use. So when you have these individual measures, you can also combine them in different ways and form what is called Multiplex Relationship Measures. So we combined engaging in traditional practices and alcohol and drug use. So there's three different measures that come from this: those who only engage in traditional practices and no alcohol and drug use; those who only engage in heavy alcohol and drug use and do not engage in traditional practices; and those who do both. So as you can see, there's different averages there, and there's a very low percent—on average, 8%—who engage in both, and the diagrams down at the bottom show networks that have high amounts in each of those three measures. So we also looked at support among all different network members on three dimensions: emotional support, advice or informational support, and financial support. So for emotional support and advice, over two-thirds on average are providing each of these types of support. As far as financial support, that's a little bit less than half on average, and when we combine those into how many people are—what the proportion is on average who provide any of those types of support, it's pretty high, 84%, so they're naming a lot of supportive people. We also asked about a negative relationship characteristic—arguments—whether it happens sometimes or often. On average that's about 15% of the people named across all the different networks. So beyond just describing networks, I just want to show a few quick examples of ways in which we're using the measures in traditional regression analysis. And that's one of the benefits of egocentric network analysis, variables that you can construct. You can plug those into traditional statistical techniques that are used commonly across social sciences. So this is one example where the dependent variables are cultural identity and thoughts of historical loss, and these are important elements of health disparity interventions that are culturally tailored for American Indian / Alaska Native populations. So we tested for associations with the network characteristics and these two different dependent variables, and we found that high proportions of members of the network who engage in traditional practices and proportions of people who the participants engage in discussions about AI/AN identity are both related to cultural identity and those discussions are also related to historical loss. So this is just an example of how the network variables can be used. Another example is in the substance use of participants. So we looked at cannabis use and also intentions to use drugs and alcohol in the next several months, and the bottom line of this analysis is that the higher the proportions of people who do engage in heavy alcohol and drug use, the more likely there's going to be participant cannabis use, and also participant intentions to use drug and alcohol. The more people in the network who do not engage in heavy alcohol and drug use, the less likely these two things are going to happen. But when we use these multiplex variables where we also combine it with traditional practice use, we do see a reduced effect of the social influence. So those who did not engage in traditional practices and also engage in substance use where it was a stronger effect on both the participant use and also their intentions to use. So we also looked at mental health dependent variables, anxiety and depression. And we looked at several different—We did bivariate tests of

network characteristics. So what we found is that having a lot of—having high proportions of people who the participant argued with sometimes or often was a strong predictor of both anxiety and depression. And for depression we also found that having a high proportion of people who had lived on a reservation at some point in their lives was negatively associated with depression. So that was sort of a buffer against depression, whereas having a lot of high proportionate people who live 50 miles away was positively associated with depression. So those're just a few examples of projects that we have that have resulted from the data collection. But back to the intervention, where we were incorporating network feedback during the intervention itself. The participants—they did this online survey where we're analyzing the data from the baseline and they immediately saw their network diagrams while they were finishing entering the answers to their questions, and they wrote little responses to what they noticed. But then they came to the group, everybody looked at their own network, and they had discussions with other group members about what they were noticing. No one looked at anyone else's network but their own. And they had discussions about how their network intersected with alcohol and drug use issues and talked about prevention related to social networks. So here is an example of one person who saw this network when they filled it out online, and they typed in what they noticed about it, and they noticed that majority of the people in the diagram are likely to engage in drug and alcohol use. And this is a diagram from a different person who saw how many people in their network were engaged in traditional practices, so they saw that all their friends engaged in traditional practices and most do so together. So this is what this person—just these two people discussed when they went to— when they discussed their networks in the workshops. So just to wrap up some concluding thoughts. So social networks of American Indian / Alaska Native emerging adults in urban areas are diverse. These network characteristics have strong associations with cultural identity and mental health. And then adding in multiplexity and relationships, it impacts the association with drug and alcohol use intentions. And providing visual feedback about characteristics of networks complements behavior change interventions that include a focus on traditional practices. And before I finish, I just want to say thank you to our Elder Advisory Board who have been advising us on every single part of the project, including co-authoring analysis and papers from the study, and also we have many different community partners that we've been working with and we wouldn't be able to complete this project without their help. So thank you very much.

00:29:37 >> [Sazid Khan] Thank you so much David. Really appreciate it. Great. Great presentation. Next up we'll have Dr. Ivanich. Jerreed, if you want to go ahead and share your slides, we'll take it away.

00:30:07 >> [Jerreed Ivanich] All right. Well, I'm excited to be here with you all, excited to chat. Can everybody hear me and see my screen okay? Is that a—?

00:30:17 >> [Sazid Khan] Yes sir.

00:30:19 >> [Jerreed Ivanich] All right. Great, sounds good. So I'm going to be talking again, a little bit, as you might have guessed, a little bit about social networks today in public health and some of the work that we are doing around the HEAL Initiative and some other projects that we're working on that are similarly related. So just as a way of kind of a brief introduction to the agenda of this presentation—this portion of the presentation—I'm just going to do a little bit of introduction to myself and some of the work that I do because I think it's important to center some of our identities and what we bring to the research. Then I'll talk a little bit more about like, "Why do work with American Indian / Alaska Native communities?" and why I think that's important and why we do this work. And then I'll talk you through one specific study that is part of this effort. So I'm a traveling world member of the Metlakatla Indian Community or Tsimshian People, and so I come from Metlakatla. Here's some, you know, there'll be

some sprinkling of images of Metlakatla and Southeast Alaska throughout my presentation. But this just gives you a bit of an overview of who we are and you'll see some photos down on the bottom of, you know, some famous artwork. This is a totem pole that was raised in the Native American Smithsonian. That was actually carved by my mom's 7th-grade health teacher. So excited and always willing to be an advocate for my home community. So excited to be here with you all today. And so one of the things I'd like to kind of just spend a little bit of time, not too long, is really thinking through, why do social network analysis with American Indian / Alaska Native communities? Far too often we resort to the easy argument of, like, oh this has never been done before. Okay great, but I don't know if that's a good enough example or justification for why we do the work that we need to do scientifically. And so I'd like to break down some of those actual justifications of why we might want to do social network analysis with American Indian or Alaska Native communities. So (A) we know that relationships matter. That's a human trait, right? But we know that relationships matter a little bit differently depending on the culture, the region, the area, the group that you're working with, and we know that there is something unique about the culture and history working with American Indian / Alaska Native people. Oftentimes they're geographically isolated. They rely on community historically for survival and for resilience, and for being able to come together as a family and as a community. Yet we don't see much of that research—rigorous detail of their networks—being borne out in the scientific literature. And so, like I mentioned, social networks may be different for American Indians and Alaska Natives than they are for other communities, right? And so we don't know if some of those contextual factors change or inhibit different formations, different maintenance patterns for American Indian / Alaska Native compared to others, and I think one example of that is if you read anything around social networks and adolescents, oftentimes the first paragraph or two usually starts by saying something like, "Well, as adolescents age out of early or late childhood and into adolescence, they're going to rely on their friends more and so therefore we need to understand their peer networks to understand their behaviors." But we actually don't really know if that's empirically true for Native families. Does that happen at the same rate? Does that happen at the same developmental process? Does it happen to the same extent that they start to rely less on those familial ties for modeling behavior, for learned behavior? We don't know. I think that's an empirical question that we should really get to the bottom of before we really try to deliver interventions that harness the power of social networks. And then also social networks may help us improve interventions and policy. I think that there's a lot that we can learn about the resilience that those formal structures—and sometimes informal structures—that occur oftentimes in reservation settings that may infer some level of protection or buffering effect that I think that we can harness to really reduce substance use that may have a longer-lasting impact than just some stuffy dude like me coming into the room talking to a bunch of kids and delivering some program and saying, "Hey, you need to not do X, Y, and Z." I think we're all in agreement that those programs don't have as long of a lasting impact that we would like them to have, so how can we harness those relationships and those connections that are already existing to build interventions around and build interventions into to have a more sustained long-lasting impact than just kind of almost a helicopter prevention program? And then lastly I'd like to also just call out that social networks may help us identify deeper needs and priorities. And so, one example that I like to highlight is, some of the work that some of our Native Hawaiian colleagues have done, thinking of Dr. Scott Okamoto's work around some family-based and substance use intervention work. They really found that after talking to some of these kids around substance use that instead of this being like a peer problem, they were finding that to a certain degree a lot of kids' first-time exposure to substance, specifically around alcohol, was at large family gatherings where you have older cousins, you have uncles, you have aunts, you have grandparents that are oftentimes offering you alcohol or some other substance. And so they did a really amazing job of adapting some programs to really target—how do we teach kids to better retain those relationships while still being in a position to say no. And so I think we can do similar work around understanding

what are those connections and social dynamics that may influence initiation, maintenance of substance use for deeper needs and priorities that we can really address from a prevention standpoint. And so from there I'm going to be speaking for most of the rest of my brief discussion here around a program that we call Tribal Reservation Adolescent Connection Study. And so this is our logo, but I'll talk a little bit more in depth about what we aimed to do. This was a project where we aim to collect social network surveys among 300 American Indian youth in 9th and 10th grade, and it was a mixed-method study where we would do a explanatory sequential mixed-methods design. So we would collect that quantitative data first, we would sample from those that did the quantitative data surveys, and then we would do a subset of about 10% of them and do qualitative interview guides where we followed up with them. And so while we did this—We just finished data collection like, literally, weeks ago on the qualitative piece, so we're really excited. But what I'm presenting today are pretty preliminary and early data results. So I'll kind of dig in a little bit more deeper on the quantitative piece because we collected that back in the end of October [2022], and so we have a little bit more time to do some analyses on that front. But the quantitative data sample—we aimed for about 300. We worked with three schools on one reservation to assess the differences not just for American Indians compared to non-reservation-dwelling individuals, but also within. So we purposefully selected three different unique schools on one reservation to understand, are there differences not just between American Indian / non-Native, but then also, are there differences within the reservation? So you'll see this in a little bit. But we have one very small geographically isolated school that is about an hour to an hour and a half away from everybody else on the reservation. We've got one of the larger public theater schools, if you will, and then we have a college prep private school on the reservation that parents send their kids to from all over the reservation if that's a focus of theirs. And we did data collection with 9th and 10th graders and we use data collection using Network Canvas, which is a free software platform, and I hear that they just got more funding to now bring that from a tablet to an in-the-cloud, server-based program that you can deliver via the web, which is pretty amazing, so excited to see some of those developments. But like I said, these were collected on iPads at schools. It's very interactive, and I'll take you through some of the things that we did with that. And so, what did we ask? We asked, as David just mentioned to us earlier ago, we got some name generators, we had a name interpreter questions and some alter-alter data, and so this is some screenshots to illustrate what those looked like. So the name generators is kind of what this looks like up at the top left. They had the school roster, so we asked them one name generator to really try to figure out "What do your peer networks look like?" So we had the school rosters and they could pick anybody from their school who were their friends. Then we asked them about their family network, so we said, "Hey, name up to eight family members you're close with outside of your school." And so they could just start typing away who those people were. And then the third name generator was like, "Who are your people that you're close to that are not at your school and also not family members?" So we kind of had three different networks which allowed us—The school-based networks allowed us to do complete or whole networks, which I'll show you some data from, but we also have a lot of information to be able to dive into some ego network analysis, which my colleague David just highlighted some of the amazing things that you can do analytically with that. But then we also asked about each of those people, so you'll see in this picture on the right, each name or each alter just shows up as a bubble, and it was kind of fun for them, they were able to just grab each bubble and put it exactly into the right buckets, so it was very interactive, it was very quick. This survey which was originally built out in redcap would normally take most adolescents about an hour and a half / hour and 15 minutes to complete. It was taking them on average about 35 to 45 minutes to complete this. When it was interactive, it was much more intuitive to them. So we were really excited about the Network Canvas platform. So I'll just dive into a little bit more of the results here. So from the ego networks descriptive—So, these are the network structures, so what do individual and school networks look like and how do they compare across and within this population? Then we'll have some outcomes

at the ego Level—so, what factors of the networks are related to outcomes for risk and protections and different typologies? And then also we're going to be looking at the dyadic aspects of their networks both in the ego sense and at the whole network. So, how are ties formed, what influences why people are friends and why they're connected? So these type of models are often referred to as exponential random graph models, or Ergo models. We are finalizing some of those models, which is really a fancy way of trying to understand, when you have a Global Network, what is it about one individual and another individual that predicts a tie between them? So, what are the network factors? So if this is really dense, if there's a lot of reciprocity—things like that. But then also, what are individual characteristics that we can come to understand if those things predict a tie? So if I'm a substance user and you're a substance user, are we more or less likely to form a tie? So we're really interested in some of those analyses as well. And so to give you again a brief overview of the data, it was about 40% female, 50% male, and 10% that identified outside of the binary in some other/another gender identification. 94% were Lakota alone or in combination. And then we—For the networks, the average size of their networks, when you combine those three different name generators, were 14; and that ranged anywhere from one on the lowest end to 26 on the highest end. That 26 is likely a product of the boundaries that we set. They could nominate 10 from their school, eight from their family, and eight from the "other" network category, if you will, and so we did have some but not a ton that reached that high level. And then you can see, of their alters—the average size being 14—of their average alters, 13 of them were Native on average, so most of their networks were Native- identifying. Same gender, 73%—so there's a lot of gender homophily. And then we can see here the average number of nominated alters from each of those name generators. So about six from the school-based peers, five from the family, and three from the "other." And so, we're gonna jump into a little bit more about the grade level networks and how those differed across. So we're going to look at some pictures here and we'll detail out what some of these squiggles and big plate of spaghetti really looks like and what that really means, but as a quick reminder School 1 was a college prep school, the second school is the largest, and the third is the most rural and smallest of the three. So when we look at the 9th grade compared to the 10th grade of the smallest school, you'll see here that these red arrows indicate that they are a family. So we ask them, "Who are your friends here at school?" They told us all those people, and then we asked them, "Okay, of those people that you said were your friends here at school, how many of them are family?" So those red lines indicate that they are family. Blue lines indicate that they were friends but they're not necessarily family. The color of the node or the circle is gender, and then the size of the node is a reflection of degree, or in-degree—how many people nominated them. Sometimes we think of that as popularity. So you can look at the difference between the 9th and 10th grade here in the smallest school. And so while they had the opportunity to nominate friends from all classes at their school—or all grades—when we look at these analysis, we're restricting it just to the incoming and outgoing ties of people in that grade, so this is like a subset from that larger name generator, if you will. This is that largest school, so we can see that it's quite a bit bigger in terms of the number of nodes. It's becoming a little bit more complex, hard to see some of those patterns, but you can start to see some different cliques forming, different components of the network. So we're going to dive into some of what this means here in a minute, but I just kind of wanted to show you what those look like. Here's that private school—so you can see for 9th grade, just even visually speaking, you can look at this and just see that this is a much more densely connected network. So there seems to be a lot more grade nominations happening within this private school, and that seems to still be true even in 10th grade. But we can see that in 9th grade there's a lot more red lines than there are in 10th grade, so there is something going on. Is that a cohort effect? Is that a developmental effect? I think that those are some really interesting questions that we're looking forward to diving into. And so one other thing that I wanted to point out was those red and blue lines. So it may be hard to see here, I apologize, but you'll see in these graphs here that sometimes—like here in School 3, in 10th grade, where these yellow

circles are calling your attention—while two individuals may have said, "Hey I'm friends with Bob and Bob's friends with me," sometimes I might say, "Bob is a family member and Bob didn't say that I was a family member," and so is that measurement error? Is that a definitional disagreement? And I think that this is one area that we'd really like to explore a little bit more with the youth, and we did ask them in their qualitative interviews, "What is that?" Because I think sitting in a room with them doing these interviews, as they're spread out in an auditorium with tablets, you know, I can't tell you how many times I had to quiet the room down because they're asking each other, like, "Hey Tim, are we real cousins?" Right? And so I think sometimes it may be a definitional misunderstanding of what "family" means. And so, is that an error on our part? That's something that we'd like to dive more into, but "are they actually related?" is something that we're thinking through. And so some key takeaways and implications—So again, we have information at the ego level that we're putting into traditional regression analyses of, what are some of these network compositions and network characteristics at the ego level that are predictive of some of these outcomes? Substance use, primarily. But then also we have whole networks that we're going to be looking at some of those outcomes in the exponential random graph models. And then we also have qualitative feedback too, where we did individualized qualitative interview guides for every individual that we did. So we showed them their school network, we showed them their ego network, and then we also asked them specific questions around substance use, suicide, and exposure to violence, where we pulled in information from what they said about who were the people they go to, why they go to them, and we asked them further questions. Which, I think we are in store for some really rich data because we did individualize every interview to that participant. But we haven't really gotten into the analyses of that qualitative data, but then I think we've got some really great feedback for the mixed-methods side of things, as well. But what I hope that you're pulling out of most of this is that one size may not fit all, right? So even within one reservation, you can see how much variation there is across schools on the same reservation—with the same culture, with the same history, there are still huge differences in development, in network formation, and maintenance patterns here in one tribal setting. So one size may not fit all, right? We've already talked about some of those measurement issues, and then how do we capture these issues around family and those family dynamics when that may mean something different to Native people than it does in kind of Euro-centric, white definitions of nuclear family? And then also we saw—and I didn't pull this out a ton in those visuals—but we saw a very similar in-degree distribution within the network. So oftentimes within network studies and prevention efforts, the most commonly employed prevention strategy is to use what they call "key opinion leaders" where you're largely taking individuals with high in-degree, because they're kind of a proxy for popularity, and delivering interventions with them in hopes that this diffuses across the network. But how do we approach that same approach in communities where in-degree was relatively similar across individuals, and there's no prevailing key opinion leaders, and that may not work? So it's something that we're trying to think through as well. And lastly we've got some data here—I won't spend a lot of time here on these next two slides, but just some sneak peeks at some of the analyses—So we're finding that having a higher proportion of same gender in your network leads to increase of alcohol use. The number of alters who do drink increases that, but we're also finding decreases of having an alter who encourages you not to drink does in fact decrease your likelihood of using alcohol. We saw similar patterns for all substances, so if you have an alter that discourages you, we would see less. If we saw that you had a lot of alters that use, again, we would see a increase in your marijuana use. Tobacco, a fairly similar pattern, but pressures you to use if you have alters that actively pressure you to. This was not true for marijuana/alcohol. We saw an increased likelihood of you using tobacco, but discourages you from using, we would see less. So those things retained their significance while they were in the model together and then, again, having more alters that use increases yours. So some really interesting takeaways that we're excited to jump into—both the individual, the ego level, the whole network, dyadic models, all the way through to really

understand what is predicting these network structures, but then also how are those network structures predicting some of these health outcomes that we are working on? So here are some next steps to continue that analysis. Look at those qualitative interviews. Do some mixed- methods integration. Also work with data from the community to inform these findings through our adult and youth community advisory boards. And we just submitted an R01 application to look at longitudinal networks over time in the same community but expanding the number of schools. So again, thank you so much. Just some more pictures from my home community. So thank you for your attention.

00:53:52   >> [Sazid Khan] Thank you so much Jerreed, that was great. Really appreciate it. And next up we will have—and I see she's already loading the screen—we'll have Dr. Jodi Ford and Dr. Rose Hardy to share some of their work. And that being said, it looks like Jodi's ready to go, so I'll pass it along.

00:54:11   >> [Jodi Ford] Great, thanks so much Sazid. Good afternoon everyone and thanks for joining us. My name is Dr. Jodi Ford. I'm a professor here at Ohio State University and a co-investigator on the HOME Project. Dr. Rose Hardy and I are going to be sharing this information with you about our project: Social Networks among Youth Experiencing Homelessness, and some results from the first phase of our study. And I'm just going to put a little shout out disclaimer, I've had internet issues all afternoon, so if I disappear, Rose is going to pick up for me. So hopefully that doesn't happen. All right. Get myself moving here. Okay, so in the United States, nearly three and a half million young adults ages 18 to 25 and 700,000 adolescents aged 13 to 17 experience homelessness every year. So as you can see from these statistics, being displaced due to a lack of housing is not uncommon among our youth in the United States today. Unfortunately, in addition to being [un]housed, many of these youth also experienced significant adversity in their lives, and that increases the risk for post-traumatic stress disorder, substance use, and death by suicide and drug overdose. Prior research has found that 80% of youth experiencing homelessness have also suffered from physical abuse, 89% from emotional abuse, and 34% from sexual abuse prior to becoming homeless. Street victimization is also highly prevalent among these youth, with 52% of youth reporting they have been physically assaulted, 25% robbed, 21% sexually assaulted, and 28%—sorry about that—poly-victimiz—everything's moving forward… There we go. And 28% poly-victimized. These numbers are quite high with the trauma that these youth experience, and this really sets them up to many more issues compared to youth who are housed. We know that youth who are experiencing homelessness are two and a half times more likely to report at least one adverse childhood experience, six times more likely to have two or more diagnosed mental disorders, and 10 times more likely to die than youth in the general population, with alcohol and drug use and misuse, and suicide as the leading causes of death. Compared to youth in the general population as well, researchers have found that youth experiencing homelessness often have networks that are changing very frequently. There's very little research done, though, in comparison to youth who are housed. It's kind of similar to Jerreed when he was talking about Native American youth—we don't see a whole lot of research done on the networks of youth experiencing homelessness and compared to those with the general population of adolescents. The research has found that the social networks of youth who are on the street and displaced, they're less likely to include family members, people from work, case manager, people who provide material or emotional support, and people who disapprove of substance use compared to youth in a study who were formerly homeless and in supportive housing. So we asked ourselves, "Do we think that housing and supportive risk prevention services can connect youth experiencing homelessness to supportive and 'prosocial networks' and ultimately prevent opioid use disorder?" The overall goals of the HOME Study—which is Housing, Opportunities, Motivation, Engagement—is to prevent opioid use disorder, promote positive change in secondary outcomes—such as other substance use, mental health, days housed, and HIV risk—among youth who are homeless, through—and we're using a Housing First strategy combined with opioid use

disorder and other risk prevention services. The aims of the study are to evaluate the relative efficacy of the housing and the prevention services compared to just risk prevention services alone, to test the effects of primary and secondary mediators on the primary and secondary outcomes, and also to explore how moderators such as age, sex, race, sexual orientation, childhood history of abuse, and service connection and substance use patterns affect the response to housing and risk reduction services. So the intervention, as I noticed and mentioned before, is housing. We have a Housing First philosophy where the intervention within that is 6 months' worth of rent for the youth, and utility assistance that is paid for the youth who are in the intervention group. And then the youth that are in the control group have 6 months of—well actually, I'm sorry, the intervention and the control group are receiving 6 months of strengths-based outreach and advocacy and two motivational interviewing and HIV-prevention sessions. So the youth in the control trial are receiving the housing, and both the control and intervention group are receiving the opioid use disorder and other risk prevention services. In addition to these interventions, we also screen youth for high risk for suicide at the beginning of the data collection, and those who are screened high risk are also offered to be in another controlled trial where we're testing cognitive behavioral therapy with suicide prevention services for these youth. Sample of youth for the whole study is 240, and as I said, the intervention group is 120, the control group receiving the services only is 120 as well. We have evenly distributed there. The eligibility is 18 to 24 years of age. Youth are experiencing homelessness according to the definition by the McKinney-Vento Act, and then the youth have failed to meet the DSM-5 criteria for opioid use disorder, as we are focusing on prevention services on that. Here briefly is our conceptual model. On the left here we have the risk prevention services and the housing, and as you can see here, the social resources—thinking through about social connections, service contacts, social support, and connections to peer and family—are some of our mediators, and how we're thinking through housing may confer some changes here in these patterns of service connection and connection to other social connections to others have an impact on primary and secondary outcomes. Similar to others, we are focused on ego network data. The youth—We were using a adapted social network interview. The data is collected at Baseline and at 3, 6, 9, and 12 months. We also use a name generator in which the youth are able to report on data of 10 family members, friends—10 friends—so there'll be 10 family members, 10 friends, and 10 others who they've had contact with in the past 12 months—I'm sorry, in the past 6 months—and since the last interview for follow-up visits. The youth are allowed to nominate up to 24 contacts total. And then for each relationship, the youth are asked about the relationship role, who these persons are in the relationship to them, whether they're parent, sibling, or friend, romantic partner, or service contact; length of relationship; frequency of contact they have with them; and how relieved they are after going to the person for emotional or material support. And then last they're also asked about engagement in the risk behaviors of the contact that they named, whether they may be engaging in alcohol/drug use as well as criminal activity. I'm going to share a little bit—We're going to share a little bit of our pilot study results. Similar to others, we are still in data collection. We have finished the baseline data collection of all the youth and the larger randomized control trial and have been able to recruit the 240 youth, but we are currently in the assessment phase of the follow-ups. The goal of the pilot was to assess the feasibility, acceptability, and the initial efficacy of the Housing First model over a six-month period in preparation for our larger trial. We had 21 youth in the study. This was a single arm study, so all the youth in the study received the 6 months housing and utility as well as the risk prevention services. We assessed the surveys at baseline, 3 months, and 6 months, which Rose is going to talk about the results from that, as well as in-depth interviews with landlords and youth at 6 months. Our follow-up rates at 3 months was 90.4% of the youth, and then at 6 months, 80.9% of youth were retained in the study. So I'm going to stop my share and Rose is going to do hers.

01:03:07 >> [Rose Hardy] Fantastic. Thank you, Jodi. Here we go. Takes me just a minute...and...there we go. So as Jodi mentioned, the pilot had 21 youth that were enrolled, the majority of whom had experienced homelessness for the entirety of the previous year. They tended to be in their early 20s, and 52% identified male as their biological sex, 38% female, 10% as intersex, and in terms of race, there were about 43% that identified as Black or African-American, 47% mixed, and 10% African, although they were allowed to choose a lot of different races. And so when you look at the race specifically, individually, you can see that it's a pretty diverse group. So in general, in terms of demographics, the youth in the pilot study were in their early 20s of diverse racial backgrounds. There were multiple reasons that contributed to them first leaving their family of origin, and it was often related to familial conflict, and that may be particularly important as we consider their interactions and the quality of the relationships within their networks. So we can construct those contact networks from the data—those ego networks that we've seen now a couple of times. They varied in terms of the people in those networks and the types of people in them. So it can be kind of overwhelming to look at, so we'll just look at one in particular. And what you're seeing here is, the gray circle in the middle is the youth that's been enrolled in the pilot study, and then the colored circles around it are members of their contact network. So the green circles are friends, parents are in the purple, siblings would be in that darker blue, other family members would be in that lighter blue, romantic partners in magenta, and sort of that tan or yellow are other members. So in addition, the closeness of the youth in the pilot study and the thickness of that line indicates that the member is more important to them, so those that are closer and have thicker lines are the more important members of their network. Within this pilot, people had an average of six people in their network, with most of them being friends—with more of them being friends than family members. You'll see that there are a few other members in these networks as well, and that could be people at nonprofits or resource centers, or mental health counselors, things like that. But in general it was friends and family that made up those networks. Although it's worth noting that parents were not always a part of these contact networks. And there was only one person at baseline that reported not having a contact network. These networks, as have been mentioned, were measured at baseline, at 3 months, and at 6 months. And over the course of those 6 months, the frequency of contact increased. They were asked again about the degree of relief that they felt going to a member for support, and that varied some between the member types. So for example, it was often higher among friends than family members. They were also asked about members of their network engaging in potentially risky behaviors like alcohol abuse, drug abuse, and committing multiple crimes, and over the course of that 6 months, we saw a trend of them reporting fewer risky behaviors among their network members. One of the other things that we're interested in looking at as we go forward is whether these networks may influence substance use. Here again, we're looking at these youth networks and they're color coded by "doesn't use drugs" (the green), "uses drugs" (the teal color), and then "abuses drugs," which is the blue color there. And the youth in the pilot study again are the gray circles, but they're sized by their marijuana use, so larger gray circles indicate that they reported a greater percentage of marijuana use. While there isn't enough data to study opioid use in this pilot study, many of these networks were reported to use but not abuse drugs. In looking at the relationships, there may be one between relief after going to network members for help and the reported alcohol use. So those that had more members with higher levels of relief after going to them for help also are reporting lower levels of alcohol use. There are a couple of things that we want to think about from the pilot study as we go forward with the larger randomized study. As has been mentioned, the familial conflict was often a contributing factor to these youth having originally left their family and their home, and so understanding the quality of these relationships and who's in the network is going to be important as we go forward. We have some questions around the network members that may be involved in risky behaviors and how that may impact the behaviors of the youth within the study. Are there factors that contribute, say to youth removing such members from their contact networks? And

finally, as this study collects a lot of data, we're looking forward to looking at how these networks may impact other outcomes, health related and otherwise. So drug and alcohol use and abuse, health care use, different sleep outcomes, mental health outcomes, and need issues and types. And then the final thing that we wanted to talk about, and has been mentioned by others in terms of measurement considerations, is: we have this fantastic group of a field team that has been collecting these network data with the youth, but in talking with them, there are some considerations for you all as we wrap up this webinar. The familial conflict was often a reason for leaving home, and so considerations of the relationship types within these networks and defining them and clarifying them is likely to be valuable. So, does conflict with family members, biological or chosen or otherwise, impact these networks and the quality of the support that they feel? Does a complicated relationship with a biological member of their family impact outcomes or quality of support? These youth have pretty complicated relationships, and ones that are changing pretty quickly over time, and so even though we're measuring every 3 months, people can drop in and out of networks and the quality of those relationships can change at any one time. And so we've also talked about measuring both positive and negative aspects of these relationships to get a more nuanced understanding of these networks, particularly when many have histories of abuse, neglect, and rejection. And then there are many different ways to measure trust and support, and the way that the youth may be defining them may be different than the way that an intervention or a researcher may be thinking about them. And so having clear and thoughtful definitions can be really useful. In addition, some of these youth are likely to not have support networks and so thinking about how we can address that when it happens is going to be important. And then finally, confidentiality is a consideration for the collection of data with this group of youth. Many may be hesitant to provide identifying information about members of their network, and while there's a lot of value to understanding how these networks change over time, if that data is incomplete, then I don't know how helpful it is, right? And so balancing that is going to be important. Exactly what you need to answer the question or to implement your intervention, have you built the trust with the youth to make them feel comfortable? Answering those questions with youth—these data ultimately belong to them and so ensuring that we protect it and use it in ways that they're comfortable with is critical. All that said, you know, there's—I think that understanding these support networks in general and helping youth to leverage their own strengths can be incredibly important, as we want to see different health outcomes, including lower opioid use in this population. And I think that's it for me, so I will stop sharing and hand it back.

01:12:59 >> [Sazid Khan] Thank you Jodi. Thank you Rose. Really appreciate it. We've had three great presentations by our experts. Thank you all for presenting. I think this is fascinating work and I see all the claps coming up from the audience. So that being said we'll go ahead and start off the Q&A session with the audience as the claps continue to come in for you all. If you have any questions feel free to write them to the Q&A box at the bottom of your screen but to get started I'll kind of kick us off with this one. It's very simple one, I'll start with Rose and Jodi, and that's, "What got you all interested in social network research to begin with? Like, what was it about it that, like, drew you to it?" So either Rose or Jodi, you two are able to start, then I'll go to Jerreed and David.

01:13:53 >> [Jodi Ford] Sure, I started working with networks quite a while ago and I think a lot of my interest in it really kind of stems from my clinical practice when I worked as a pediatric nurse practitioner, and seeing—that was in primary care, working with youth in kind of a housed general population—and just seeing how much of their—different combinations of their network had an impact on their mental health and well-being in particular. And so that kind of expanded as I have gone throughout my career, and then working on this project and with these youth who often have such adversity in their life and thinking about how these networks and social connections may... how we can leverage them and be

able to help connect them to safe places and safe people, to help them be able to move forward, has become more of a passion.

01:14:55 >> [Rose Hardy] My dad was the only pediatric cardiologist for western Montana and so I sort of saw firsthand the way that the delivery of care in more rural settings for—specifically specialty care for kids—can be different than in urban places, and the importance of those relationships. He was on call most of the time and had a phone available to providers across the state and to patients as well. And so that's been part of the reason that I've seen that relationships are particularly important in this setting.

01:15:34 >> [Sazid Khan] Absolutely. Jerreed ?

01:15:37 >> [Jerreed Ivanich] Yeah. I think being a Native individual myself, by getting exposed to this in the academic spheres, I was just flabbergasted that there are no—there's no network. And just for some of the reasons that I already articulated around like, "Why do we need this?" But then also I think as you learn about and as you are trained, you know, RCTs are treated as the gold standard, right? And I think that social networks can do a lot. Social network analysis can help us retain a certain level of scientific rigor around preventions and interventions, as it's a developing field to capture contamination, diffusion, spillover effects without having to always employ a model of a randomized control trial in communities where that just—sometimes it's just not possible, due to sample size, because you're working with smaller villages, or sometimes just due to ethical concerns from the community. Some communities just will not give you approval to knowingly give a program to one kid and not another kid. And so social network analysis for me is a way for us to be able to explore how these things, how we can get better at doing this research and developing programs without always having to default to some of those things. Not to say that I'm holistically opposed to them, but just that I think this propels us and in a similar vein, like, you don't need the sample sizes that you always need, and big data, to run some of these more sophisticated models. In social networks, you can have a school of—you know, a smaller-sized school and still run valid scientifically rigorous analyses that really speaks to that community. So all of those reasons really shaped my desire to continue to do this work in Native communities.

01:17:41 >> [Sazid Khan] Absolutely. David?

01:17:45 >> [David Kennedy] Well as someone who's trained in medical anthropology, so the social component of health has just always been something that's been very—that's not a new thing for me. Done that my whole career. But I really got into social networks when—I had some good mentors in it, but it wasn't until I started at RAND Corporation. I came in as primarily a qualitative methodologist, more like a mixed methodologist, but RAND is very interdisciplinary, people from all different kinds of disciplines. So that kind of opened my eyes to how so many different disciplines, so many different social scientists has sort of an interest in social networks, but in a sort of a—they weren't actually measuring social networks, and colleagues that I would work with would really be interested in, but they didn't know how to measure it. They didn't know how to analyze it, didn't know how to quantify it. So I gravitated towards egocentric because it was a kind of a way to bring networks into a lot of different applied projects. And so I just kind of saw this, like, how I just became really aware that there's a real recognition that this is an important thing, but a real sort of lack of expertise in it. And so, in qualitative interviews a really good way to get people to talk about social relationships is show them pictures. And so I had been doing that and then I just noticed that people were sort of self-diagnosing problems with their social networks when they were just sort of looking at them and talking, so that kind of led me into thinking about ways to use networks in a health intervention. So that kind of, that was like sort of a

second level of the trajectory of why I got into it, so I've been working on many projects that are related to that.

01:19:50 >> [Sazid Khan] Okay thank you all for those responses. I think it's always cool to see the insights and like, kind of the origin story of how you all got into the work you're doing, right? So we do have a question from the audience, and I'll open it up to anybody on the floor, and it's, "Does it make sense to link SNA data with geographic and other ecological variables more extensively?" And again, anyone is welcome to respond to this one, so if anyone has a burning response to this one, go for it.

01:20:19 >> [Jerreed Ivanich] Yeah, I think I'll just jump in. I think, to a hammer, everything looks like a nail, is kind of what I always say. So to me I think a lot of geographic information that we have is social network data. It's not social in the sense of like, hey we go fishing together and that's a connection that we can put out there, but there are a lot of great work being done around geographic information and how that gets materialized as network data, if that's like airports, or if that's disease spread, or if that's a host of other issues. So I think if it's the social entity or if it's some interaction of objects in time and space, I think there's a lot of really amazing work that does this, especially in public health and logistics type literature, so I think it definitely is an area worth exploring. Especially around substance use and thinking about hot spots of where things are, and who occupies those spaces, and how often are they coming into contact with those spaces. So those connections don't always have to be place-to-place or person-to-person, they could be person-to- place, things like that. So I think there's a lot of really good reasons why you would want to have that kind of information.

01:21:42 >> [Rose Hardy] I also think it's worth thinking about the fact that these networks may be different in urban and rural communities and in different geographic areas.

01:21:55 >> [Sazid Khan] Absolutely. Great points made. Unless there are any other points, we have one more question for you all. We'll go ahead. So the question is, "What kinds of issues have you come across—" ah, this is always a fun one, IRB question—"What kinds of issues have you come across getting these projects through IRB approval and how do you address them?" Again, open it up to the floor. Always the joy of IRB. The needed joy, but still a joy.

01:22:27 >> [David Kennedy] Well, I'll jump in. In asking people to list names of people, especially if you're talking about any sort of illegal substance use—for those types of projects, we really emphasize that they can use nicknames, they can use just first names, or any sort of a description that makes this person not extremely identifiable. So that's a thing that I've had with IRBs. And also the ways in which you ask questions is not necessarily—you ask someone if they did some sort of illegal drug with a person. It's just, you ask it in more of a general way, so that you're not—You ask it like, "Did this person use drugs when they were with you?" So just sort of shield it a little bit. So there's—a lot of times, it's—through the IRBs, it's sort of educating them a little bit about what you're doing, and because they're kind of— imaginations can run wild a little bit, and there isn't always expertise in social network analysis. But a lot of times, we just sort of make sure, like, that we produce a network map even if you do use nicknames. Sometimes, when somebody sees it, it's so powerful that you can kind of figure it out if you know something about the person. So for this project, we made the network maps available in an online format that would sort of prevent easy distribution of those networks. So there's just a lot of little accommodations you can make to, sort of, overcome the concerns of the IRB.

01:24:10 >> [Jerreed Ivanich] I'd like to just tag on, I think that this is an area where I think if you have a lot of community buy-in, whatever your community might be, they can be those champions for you. Working

in a tribal setting with adolescents in schools, I think you can probably imagine the difficulty that, you know, when we say, "Hey we want to ask sensitive questions about you and your friends," and—but in the end, actually the tribe wanted and encouraged us—especially our school partners—encouraged us to seek passive parent permission because of the burden it was to their schools, to them, to the students who are just now coming back from COVID restrictions and are so heavy-laden with a host of other issues, that when we went to speak to our tribal review boards, and had those champions and their support, it was really actually quite easy to get approval to do some of these things where we had student roster information, where we had—and so I think it really speaks to the need to really have deep-rooted community connections and champions to the work that we do. So yes, David, we have to educate, oftentimes, our IRBs, but I think also, I think we really need to build the value to our IRBs and to our Community Partners so that way they're not just like, "You're just poking and prodding for the sake of poking and prodding," but that there is an intended goal and reason why we're collecting this data.

01:25:51 >> [Jodi Ford] I'll jump in here a little bit too. Another project that I work on is where we actually are collecting GPS data and location data and EMA data, and asking about network partners and who they're with and what they're doing and where they're at, and we have their GPS data, so clearly very sensitive in being able to bring that information. And I think like Jerreed said, a lot of it was really focusing with the IRB, doing a lot of education, and making sure—reassuring people how secure the data is and the level of security that goes through. Because the biggest things that our IRB was more concerned about was gaining information on people who didn't consent to be in the study, and so making sure that those people remained anonymous, that we wouldn't know who they were. But it can be a challenge in data safety, and security is critical.

01:26:48 >> [Sazid Khan] Absolutely. Thank you all for your insights on that one. One final question we've got— and before we get to the question, I'm going to put into the chat, there's a—we'd love for y'all's feedback on the webinar experience, and I'll put this up on the slide at the end. So if everyone can stick around for a minute or two afterwards and fill out the little survey we have on the feedback for the webinar, that would be great. We're always looking to hear how the audience felt about the webinar and things of that nature. But the final question we've got is, "What software do groups using for analyzes and visualizations?" I'll open it up to the floor.

01:27:34 >> [Jerreed Ivanich] We are boring and we just use R, but there are a lot of amazing programs out there depending if you're using ego networks or if you've got whole networks, and if you want to make it look really pretty you can use something like Gephi or a host of other packages. But we tend to just stick with R because it's most versatile across ego networks, whole networks, and multiple grades and multiple networks in one.

01:28:00 >> [David Kennedy] Yeah same thing with me. We use—I've been working on this software, EgoWeb 2.0, for about 13 years at RAND, so that's what we use to do data collection and immediate visualization. And also I have some, in our package that I'm working on, that you can export the data immediately from EgoWeb into our package to get a lot of summary variables. The variables that I presented today and all the visualizations I presented were with R.

01:28:35 >> [Rose Hardy] So ones from this presentation were within Gephi.

01:28:46 >> [Sazid Khan] Well, I mean, we still have a minute or two extra, so I know that was a question specifically for David if you'd like to respond to that one.

01:28:55 >> [David Kennedy] Sure. Yeah. "If there are any substance use prevention outcome data." For this project we don't have any—We're still collecting data. We do have a lot of publications about the acceptability. And some—we did focus groups prior to implementing the work—creating the workshops, and we just had a paper came out. One of the slides I presented, some of the outcome variables for substance use has been just published, but that's on the baseline data, but I have a whole other series of projects using this approach with homeless adults and homeless emerging adults. So this is one of the adaptations of that. So yeah, I have a whole bunch of projects where people who have been—like, it's related to the other project, the Housing First project, where people are being enrolled in Housing First, they're getting case management, and then the case managers are giving them feedback about their social network and working with them to make changes to their network in order to help them change their substance use. So yeah, there's lots of publications from those projects, and we have a lot of papers from TACUNA but mostly about the development of it and some preliminary tests of association for baseline data.

01:30:24 >> [Sazid Khan] Perfect, thank you so much. And that being said, I want to—we've kind of come to the end of the webinar. Thank you all for joining. I will go ahead and share this. This was produced by the HEAL Prevention Coordinating Center. For some reason—yeah, I don't know why the registration, the link isn't working. That's so strange that it's not working. I will send it out afterwards, but there's also a QR code if you're able to just put that onto your screen. Thank you again to all those who collaborated on this from RAND, the Ohio State University, University of Colorado, as well as on our side from RTI International. And we thank you all for your time. And that being said, let's see here... Yeah, so again thank you all. I want to thank our panelists for their time and effort into this work in terms of presentation as well as in general. This is great. And yeah, we really appreciate it. In case anyone has any final thoughts, otherwise we'll stick around for a couple minutes afterwards so folks can fill out the survey. But other than that, thank you all for your time. And yeah, that being said, appreciate it all. Hope you all have a good rest of your day whether it be end of day in the east coast, middle of the day in the Midwest, and mostly afternoon on the Pacific coast like David's got, so, you know, it's always fun with timelines and how, kind of, where folks are in the country. So thank you all again.

01:32:18 >> [Jerreed Ivanich] Thanks. I do—I'm sure we're gonna head out soon. But yeah, David, some of your findings, I would love to chat with you and your team about, because I know that there's some earlier work within your communities that seem to contradict some of what you guys are finding. So I'm really interested in some of that, so love to maybe set up a chat with your team and our team and connect on some of these things.

01:32:47 >> [David Kennedy] Yeah definitely. Yeah I guess, it's probably, there's differences in the populations.

01:32:54 >> [Jerreed Ivanich] Oh yeah, for sure.

01:32:56 >> [David Kennedy] Different life experiences.

01:32:59 >> [Sazid Khan] And that's a big part about, like, the synergy, right? And getting, like—the point of the webinars, to connect, to see folks who are interested in different types of work as well as similar work that has different results. Always fascinating stuff. All right everybody, I think we've got enough—given folks enough time for surveys, those are linked in, and thank you all for your time.

01:33:22 >> [several] Yeah, thank you so much. Have a wonderful day. Bye.

[End]