## Perry Chan

Hello. My name is Perry Chan. I'm a staff member within SAMHSA's Office of Behavioral Health Equity on behalf of Samsara and OBHE we would like to welcome and welcome back you for the second section, our Data Data Storytelling Workshop series. I hope many of you found workshop number one last month helpful. I personally enjoyed it and have learned so much.

### Perry Chan

I even tried to apply some of the skill that I learned from the workshop, such as adding hopes and emotions in the narrative when I give presentation. It's our intention is to make this workshop practical for community based organizations. I encourage you to join the Post Workshop, Q&A, office hours and continue to give us feedback.

## Perry Chan

In addition to Carlos today, we also invite two community organizations to share their great work around data storytelling. I wanted to welcome all of you again, and without further ado let me turn the floor to Carlos to start today's workshop. Carlos, please go ahead. Thank you. Hello, everyone. Good afternoon. Happy Thursday. Welcome back to session number two on data visualization.

# **Carlos Morales**

All right. Let me actually my name is Carlos Morales. I am joined by the members of SAMHSA's Office of Behavioral Health Equity and members of the Achieving Behavioral Health Equity Initiative. One of the things that I wanted to say is that if you have questions throughout the workshop, I want you to use that Q&A feature. If you have comments, use the chat box.

#### **Carlos Morales**

That way we can easily monitor all of those questions and comments in those areas. We are recording today, enhanced and streaming on Facebook Live, the recording and resources will be available following the webinar at the NNED share website. Closed captioning is available through Zoom by clicking the show caption button at the bottom of the screen.

#### **Carlos Morales**

So I'm very excited about this workshop because as Perry mentioned, we actually have two wonderful organizations actually showcasing their data visualization examples. All right. And so let me actually start by sharing my screen, and I'll tell you a little bit more about how we're going to do this today. All right. Share two.

All right. You should be able to see my screen right now. You probably are seeing from the NNED website session number two. Right. And as you can see, you have all the resources in here as well. Okay. All right. So now I am going to actually move this along here and let me know. You should be able to actually be able to see my agenda or the agenda of this day workshop.

## **Carlos Morales**

All right. And so in the way that we're going to be doing this today is I am going to go back to and talk a little bit about some of the stuff that we covered on Data Storytelling 101 workshop number one. Because as you know, the and I think the unique thing about all this workshop is that all of them are actually are connected.

## **Carlos Morales**

And so we want to maintain the same theme. We want to continue having the conversation. And so I'm going to be actually just talking a little bit about some of this some of some of the some of the themes and topics like elements that we cover on data storytelling 101 workshop number one. Then obviously, I'm going to talk about some the data visualization concept.

#### **Carlos Morales**

What is it? Right. And then talk about the data visualization design process. What are the steps that you need to take when you are thinking about creating visuals for your data? Now, my time or my portion is going to be about 20 minutes or so. All right. Now, I just setting the stage for what's coming after, which, as I mentioned, we're having two great organizations presenting.

#### **Carlos Morales**

And they are the actually that's that's the meat of this workshop, because I'm going to be actually just talking a little bit about the basics of data visualization and then these community based organizations, they're actually going to take this workshop to the next level. They're going to be showing some unique examples in how they have chosen to actually present their data.

#### **Carlos Morales**

And so in they're going to be talking about another 20, 25 minutes each. You are welcome to ask questions that you actually are listening to their presentation. Again, you can use the Q&A feature to ask questions and for comments you actually use the chat box. And if we don't have time to

pause, you know, too, because we need to keep moving, we'll sort of actually then part some of those questions towards the end of the workshop.

## **Carlos Morales**

Now keep in mind, though, that as you're asking questions, if we don't have time to answer them in real in real time here throughout the workshop, we're going to actually we're creating a Q&A document or in which we're providing answers to all the questions that actually are coming from you. We want to make sure that that this workshop series are as useful and practical as possible.

#### **Carlos Morales**

And so we want you know, we want to thank you for being here. And so also, we created a data visualization guide that you can use as you're starting your journey in data storytelling to start thinking about how to actually visualize your data, what kind of visuals you actually can can actually create. Within that guide also, there are resources that you actually can go and tap into to even enhance your visuals.

#### **Carlos Morales**

Right? And then we'll have some closing remarks and next steps towards the end and obviously some Q&A, too. All right. So let's get started. Now, this actually should be very familiar to you if you attended Data Storytelling 101. Right. Because we actually talked about these particular elements. We actually talked about when we're talking about the foundation of data storytelling

#### Carlos Morales

we're talking about narrative, data and visual. Those three things need to be actually working together. And so that data storytelling is like telling a story to a friend. But instead of using just words, you also use numbers and pictures to make your point clear. That's the whole purpose of it, right? We want to make sure that, as we are actually telling, that story and data is backing that story up.

#### Carlos Morales

Right. It's like, how do we make sure that the audience engages with us and the audience capture what we say in and that is actually by creating a powerful visual. And so in this case, for example, this particular figure that you see, this particular diagram it shows the relationship between data, narrative and visuals. Right? A narrative, as we talked about it in in workshop number one helps explain data visuals help engage the audiences and data provides the insight to convince the audience to do something about this right or to convey the message.

And so when all these three elements come together in perfect balance, they help bring about change in the form of perception, education, engagement, behavior change. If you actually are trying to get buy in for your program for for processes within the organization, obviously using these elements will help you convey that message. Right. So when we talk about data visualization, like if you do a Google search, you're going to find a lot of definitions.

## **Carlos Morales**

So there's a lot of definitions. You know, you might find that is in in some of your results, your search results, that it is the process of presenting data in a visual format to make it easier to understand and analyze. Right. Here's another one it's also the process of using visual elements like charts, videos to represent data. Okay.

## **Carlos Morales**

Yeah, you're actually just creating visuals that actually that people are able to see and able to understand the data by the visuals that they actually are seeing now. For more complex data it can help you translate that complex high volume or numerical data into a visual representation that is easier to process. And that's what we do when we talking about visualization.

# Carlos Morales

Think about this. We want to make sure that the audience understand our narrative. We have the data that provides the insights it's backing up our story, right? But we want to make sure that they actually get to see it and understand it. Right. And that's that's why data visualization is so important. Now, what is what is actually data visualization also improves and automates the visual communication process for accuracy and detail so your visualization can actually help you capture that detail

#### **Carlos Morales**

that might not necessarily be part of your narrative, right? But is actually represented in the visual of your data. And we'll talk more about this in detail as we go along. So in simple terms, it's telling a story with data, using visuals. That's what that's what that is right now. Let me show you an example here. If I actually show this to you.

**Carlos Morales** 

Right. And I'm saying right now, well, this is a program and I want to show you some numbers in regards to it. And here's why. You see, it's a table with labels. And obviously in the program phase we have before the program, we actually have that the participants of this of this particular, you know, mental health program. We have the participants actually had a very high level of anxiety.

## **Carlos Morales**

And, you know, it's in that in that case, the level of anxiety is actually eight on a scale of 1 to 10. So before the program, participants reported high levels of anxiety averaging at eight on that scale now post program after the program actually we notice that the participants actually the level of anxiety went down to three.

## **Carlos Morales**

Now notice, though, how I actually had to do a lot of explanation just to make sure that you understand what actually this visual is telling you. Right? Because it's a whole bunch of text. Obviously, is not the best way for us to actually show a visual of a particular set of data. Right. So there's another way that we actually can do this, right?

## **Carlos Morales**

If I actually grab the same information and put it in here, all of a sudden, actually my eyes go to that blue and green right. And I can see the one is is actually larger than the other. So in this case, this is a bar chart showing the impact of the Youth Support Group Program on self-reported anxiety levels.

# **Carlos Morales**

Right. As a specified, the Preprogramed bar is taller, indicating higher anxiety levels before participating in the program. And the post program bar is shorter, right? Indicating reduced anxiety levels after the program. So this is a better way of me telling you or showing you that story. Now the bars are colored blue and green respectively to differentiate between the two phases of the program.

#### Carlos Morales

So in this case, visual data can reveal insights, trends and patterns that text based data cannot. So there's a big difference between this one and this one right here. I cannot see that pattern here. I can. And so that's the importance of data visualization. Now, if I actually go and you remember this particular diagram, this particular actually graphic here, and these are the elements of data storytelling, remember?

So we talked about, oh, yes, we got to have a clear objective. What's the purpose of the story? Right. What is it that we want to do? Do we want inform, persuade, inspire? What what's the goal? So we talked about that in workshop number one. So I'm not going to go into a lot of details in regards to that.

## **Carlos Morales**

But then we talked about the relevant data, right, based on the objective and the goal. Then I want to make sure that I know exactly what type of data I need to collect. And so and, and make sure that the data is meaningful, is relevant. Right. So that's important. Then we actually commit to number three here, that number three element, which is creating compelling data visualizations.

## **Carlos Morales**

Now this one actually play as plays a very important role, right? Because here basically what that is, is visualizations play a very important role in conveying data in a digestible and visually appealing manner. That's what we actually that's what we're aiming for. So choosing the right charts, infographics, videos that best represent your data and make it easier for your audience to grab the information - that is key.

#### **Carlos Morales**

So for example, you can use a bar chart if you are showcasing the number of individuals seeking help for mental health monthly or comparing service usage rates across different age groups within a community. Within a community. Right. So that is actually what we're going to be concentrating on today is element number three. Element number four, we're talking about engaging narrative and contextual interpretation.

#### Carlos Morales

We actually talked quite a bit about those two elements in the workshop number one, and you have a whole guide in regards to that with specific examples in how to create a powerful narrative. But for this particular worship, we're going to be actually just focusing on data visualization. Right. But I wanted to actually bring you back a little bit for you to sort of remember what are the different elements, right, in the order that actually they go into.

**Carlos Morales** 

So when we're talking about the data visualization design process, I you know, created this these four steps that I think is practical. It makes sense for us to apply it as an organization and is actually making it easier for for us to connect, to learn things like how do we start this process? You know, how do, how do I actually make sure that my audience understand my story?

## **Carlos Morales**

What is the best way for me to actually visualize it, present that visual so they can actually engage with me and understand my story and the data that I presented, right? So based on that, you know, this actually did this data visualization design process is divided into four steps. The number one is choosing the right visualization type. And this one is the one that I'm going to be focusing on right now for the next few minutes here.

## **Carlos Morales**

Right. And so when we're talking about choosing the right visualization type, we're talking about what is it, what's it, what's what actually, what is the type of visualization that actually best supports my message? It makes my data easily interpretable. Right? So in this case, we need to choose clear and straightforward visualization such as we're talking about bar charts like graphs, pie charts, depending on whether you want to show comparison trends or distributions.

#### **Carlos Morales**

Now, for those of you who might not be familiar in terms of how to use all of these all those different types of visualizations, no worries. The guide that I created for you, it's actually walk you step by step and it gives us specifics, examples and how to use it. Right. We're going to cover some of those here that I want you to I want to make sure that I want to highlight the importance of that guide, because you also have a case study in how do you apply that guide into a specific case story of an organization that actually need to create some some visuals for the data they're actually working with?

#### Carlos Morales

Right. So number one. Number two, obviously, we want to make sure that the data is, is it's it's we want to get rid of unnecessary numbers, unnecessary data. We want to focus on what is relevant. We want to make sure that is presented data that directly support the message, the goal, the objective. Remember, that was actually the first element of a data storytelling.

**Carlos Morales** 

So we want to make sure that we understand that. We want to make sure that we take that into account. So in other words, we got to get rid of details that are not necessary and use annotations to guide the audience's attention to the most crucial parts of the data. The guide has a specific examples in regards to that as well.

## **Carlos Morales**

Right now that we have, we're talking about the number three ensure accessibility and engagement. And this is very important. This is very important because this is about understanding your audience. Remember that that was one of the elements that we talked about on data storytelling 101 is basically creating visualization that is accessible to all audience members. Right.

## **Carlos Morales**

You got to understand who your audience is. Are they're familiar with, with, with data and they're familiar with the topic that you actually are talking about. Will they actually engage and understand that data visualization type that you have chosen? Right. And you gotta think about those with disabilities and you want to make sure that you actually then create a design that takes that into account as well.

#### **Carlos Morales**

And so so in other words, you can think about colors, for example, you can use colors, contracts effectively for readability. You can actually include alt text descriptions for digital visuals and consider interactive elements for online engagement. And you're going to actually see examples of that as well too, through one of the examples of the CBO that we actually have here for you.

#### Carlos Morales

So and then we actually, you know, number four says gather feedback. And this is basically you create your your visualization example and you want to make sure that you actually showcase it to your audience, to your colleagues, for people to actually get your feedback and how you can enhance it and make it better. This is key, though, because, while you might think it might work for your audience without getting additional feedback.

#### **Carlos Morales**

We might be disappointed actually when we show the final design without actually gathering initial feedback, that that might not be necessarily the right type of visualization. So this is important as we're talking about data visualization, test, gather feedback and refine, right? And so sharing your

visualization with a small, diverse group from your target audience to gather feedback on its clarity, impact and any improvement needed, it is key, right?

# **Carlos Morales**

So these are the four elements right here. Now, if we're talking about element number one, choosing the right visualization type, I'm going to go in and describe, you know, the different type of visualization that you might consider. Right. But before I do that, let me actually see here if I have any comments, questions so far in regards to what we covered.

#### Carlos Morales

Want to make sure that I'm actually paying attention, you're engaging with me. Anything that I need to make sure that I am paying attention to you. All right. Okay, so let's actually continue here, because I need to give enough time to our wonderful organizations that are going to actually be showcasing their examples. So let's actually start with this.

## **Carlos Morales**

So we're talking about the bar charts here and actually let me move some things around here. So, I want to make sure that I get rid of this. All right. So in this case, for example, we're talking about bar charts. These actually are good when you want to compare quantities between different categories. Right in this example through, for example, you see that the service utilization by type represent the number of individuals using various mental health services, revealing the most and least popular services.

#### Carlos Morales

So you can actually tell a story here just by looking at these numbers. Right. We want to keep it simple. We want to be you want to make sure that it's easy to understand. In this case what is it that we want to showcase? We want to actually showcase? Okay, how many people are actually accessing the different services that we offer?

#### Carlos Morales

So in this case, we actually have people that you know, 150 actually are receiving counseling, that we have about 100 in group therapy, 75 family support, and then we have 50 crisis intervention. So we have the most to the most and the least popular services. From here we can determine several things we can determine, like are these numbers right?

Is this what we wanted? Do we need to actually do a better job in doing outreach, for example, for crisis intervention? Does this actually represent the community that we're serving? If we know that actually there's a very high level of people actually coming to counseling, that's great, though. But we also understand that there is a lot of dynamics when it comes to families that I think the community is also struggling with.

## **Carlos Morales**

But we only have about 75 of them actually coming to family support. Is this correct? Does this actually tell the story of the community based on the work that we're doing? Right. So there's so many things that you can actually do when you start visualizing your data, right? So if we talk about numbers, line graphs, for example, as another visualization type.

#### Carlos Morales

This one over here is best when you actually want to display data trends over time, right? In this example, the help request over time demonstrates changes in the number of requests for assistance over several months showing trend patterns. So if you looking at the patterns here, there's a lot of things that we actually can we might want to assume.

#### Carlos Morales

For example, if we notice that in January, we actually had, you know, in terms of health requests, it was around 40. But then all of a sudden by June, he's actually going over 80. Okay. What's causing that? Right. Are we doing we're doing a better job in outreach? Then now, all of a sudden, people actually are aware of the services that we provide and therefore, obviously, they actually are requesting help.

#### **Carlos Morales**

Right. What actually have caused for that to increase when we start seeing the patterns? Right. It is something happening in April versus May, for example. So there's a lot of things that we actually can start analyzing and thinking about when we actually start seeing this. If you are showing this to your audience, this might be questions that you might want to think about so you can actually provide this answer and be part of your narrative as well.

**Carlos Morales** 

Okay. All right. Let's actually go and talk a little bit about my charts now as another visualization types. Right. This one is actually when you want to show proportions that make up a whole. In this case, we actually show that, you know, talking about the demographics, the proportion that shows the portion of different demographics served by a program.

## **Carlos Morales**

Highlighting representation in outreach diversity. So in other words, when you look at the numbers here, we see that 40% of the demographic that were served are youth. They're followed by 35% adults and 25% seniors. So we look at the diversity of the audience that we are serving. Right. But also, again, it allows us to think a little bit more in terms of why is it that we have a 40, 40% and only 25%, 40% of our youth and only 25% for seniors?

## **Carlos Morales**

Is it because the services that are for seniors are a lot less in comparison to the youth, it is sort of actually, you know, you start actually asking questions in terms of the data that you're showing. But it also the important thing here that it shows that the diversity of the audience that you're serving right. And so if this is the audience, it is based on the programs that you have as an organization.

# **Carlos Morales**

And, you know, that is youth, adults and seniors are the ones who are supposed to actually get the services. That's great. The question is, is 25% a good number or do we need to increase that, right. Same with adults, right. And so those are some of the things that you start thinking about when you start visualizing that data.

#### **Carlos Morales**

And these are some of the stories that you actually get to tell to your audience as well. Right. Let's go to the next one. Got a couple more before actually bringing this wonderful organizations. But actually, the purpose of doing this is to sort of actually just giving you a sort of data visualization 101. Right, to actually present to you how you might want to think about, you know, visualizing or showcasing your data.

#### **Carlos Morales**

So in this in this example, for, for example, we are using a scatterplot, right? And so this one is best when you are investigating or showing the relationship between two variables, right? So in this case, if we look at this one, the outreach extent and help request received illustrates the correlation between the extent of outreach efforts and the number of help requests received.

Potentially identified effective outreach strategies. So this is actually somewhat similar to the ones that we actually talked about. When we look at that, I think the first one was the bar chart. But if you look at here though, you look at the help requests, which actually are the plots here, the X now you actually can see here.

## **Carlos Morales**

Right, and that you have a trend line and see they're adding a trend line to highlight correlations more clearly. That's the tip. Right. And so basically, as you can see, you can see how this these help requests actually have increased as we continue moving. Right. And so basically it tells you, all right, great. So that means that if we are conducting outreach efforts, they are working because we are getting more requests for help.

## **Carlos Morales**

And this is another way of us sort of actually showcasing that, whether we are showcasing that to the staff, we're showcasing that to to the board. This is a great example in order for us to actually make a point. And the point is, look, we have conducted some outreach efforts here, and notice how based on that we are getting actually help request meaning that the message is conveying with the audience is getting through the audience.

#### Carlos Morales

They actually are aware of the services that we provide and they're calling us to take advantage of those services. Again, this is part of the narrative that you might want to add to this particular example. Right. All right. And finally, we're talking about histograms. Now, this is a little bit different. And I'm going to give you an example in terms of what a histogram is.

#### **Carlos Morales**

But this is a type of chart that actually helps us understand how data is spread out. So in the best way for me, actually to show you this is by actually showing you this example rather than actually just going and reading that, let me actually just show you this. So in this case, we're looking at the distribution of a data set, right?

**Carlos Morales** 

So you can see that a histogram is visualizing the age distribution of program participants for behavioral health community based organizations. And this is actually you can see it here. Right? So this type of chart is particularly effective in showing the distribution, distribution of a single numerical variable, in this case, the ages of individuals participating in a program. So here's the title A Distribution of Behavioral Health Program Participants.

## **Carlos Morales**

The x axis actually represents different age ranges, which you can see it here. We start from 20, 40, 60, 80 and 100. Right, different ages. And here are the y axis here shows the number of participants in each age range and the bar, each bar is stands for an age range. The height of the bar indicates how many participants are in that age range.

## **Carlos Morales**

So from what we can see here, we can see that the tallest bar is at the 30, 40, 30, 40 age range, meaning most participants are in their thirties right now. The number of participant decreases as the age decreases. You can see that. Right. And so and so at the age increases, the number of participant decreases. I'm sorry.

# **Carlos Morales**

So after 40, we can see how the number of participants actually are coming down, right? So there are very few participants in the youngest over 20 and the elders over 80. Right. So this histogram helps us understand which age groups are most and least represented in the behavioral health program. It seems that middle age adults are the primary users of the program with fewer young adults, adolescents and seniors participating.

#### **Carlos Morales**

So this is another way of showing, though, if you actually are, you know, providing the services to the right audience, to the right demographics. And so when you want to actually show the distribution in this case of the data set in this case, we're actually talking about the ages of the of the participants. This is another way of actually showcasing it.

#### **Carlos Morales**

Right. So I'm going to stop right there. Any comments, questions, concerns. All right. So I wanted to set the stage in terms of actually for what's coming next. All right. For some of you, when you actually register for this series of workshops, most of you actually were in the beginners level when

it comes to data storytelling. So what we wanted to make sure is that as we are doing this workshop series, provide a very good foundation in walking you through the the different levels.

## **Carlos Morales**

In this case, my job is to sort of actually walk you through that. Now in the guide that I created you have more specific examples as well as the as the case study that I created. It tells you how to apply it, right? But now what you are about to see. We're going to have two organizations now telling you how they created the data visualizations, what actually is the story behind it.

#### **Carlos Morales**

And it's actually a little bit different than what you actually have seen so far. So they've taken this workshop to the next level. So I'm going to start now, so please welcome one woman. I wish we had like some drum rolls or something. You know, we're going to start with Dana. And Dana actually is going to be actually from the Virginia Community Voice.

#### **Carlos Morales**

Dana Kiernan, I hope I'm pronouncing your last name right, Dana. If not, I apologize if we're going to start with her and she's going to be the one actually talking about she's going to be starting with talking about her data visualization type. She's going to tell her story and then feel free to ask questions. You actually are listening to her and then we'll move into the next session.

#### **Carlos Morales**

Example number two, but for right now, let's give the floor to Dana. So I

#### Dana Kiernan

Hi everyone, my name is Dana Kiernan. The pronunciation was perfect. It's totally fine. And I am from Virginia Community Voice. It is a community engagement and organizing nonprofit based in Richmond, Virginia. And right now we're working in the south side of Richmond on our mission is to equip neighbors in historically marginalized communities to realize their vision for their neighborhoods and to also prepare institutions to respond effectively.

#### Dana Kiernan

And our vision, it's a big vision. It's a lofty goal. It's for equitable decision making throughout the state of Virginia. And so we really do this through our unique model of community engagement, and

it's a four stage process. And then we go through, listen, connect, craft and reflect and the goal of that is to really center communities voices, which again is in our title.

# Dana Kiernan

So Carlos, if you wouldn't mind going to the next slide, please. Okay. So our visualization is more of a philosophy and we call our our data philosophy "the data sweet spot." And for us, it really provides a complete picture of the community and what is involved in this data sweet spot is lived experience, quantitative data and the context of history and policy within the region that you're working in.

## Dana Kiernan

And so I'll obviously give some examples here. So for history, we recommend going back at least 50 years when you're looking into a community because we know that policies and the effects of today, they didn't happen overnight. It wasn't just, you know, one decision that creates communities and the challenges within communities overnight. Right. It was a decision last month.

## Dana Kiernan

It wasn't a decision last year. Policies going back all the way, 50 years plus really set communities up for success or failure. And so the community that I'm going to be talking about again is the south side of Richmond. And just a little bit about it, it's mostly black and Hispanic and white, but it wasn't always that way.

# Dana Kiernan

It was in the it started off white and then eventually, over time, changed into a black community and so when we look at the history of that, there's a couple of reasons potentially why. And so some of that was redlining, some of that was freeway constructions, two black neighborhoods. Some of that is the legacy of the Jim Crow laws in the south and a lot of is also white flight.

#### Dana Kiernan

And so looking back at the history, we're able to see how that history influences what's going on today. We also use lived experience and we do this through interviews, surveys one to ones which are a little bit different than interviews and also a video, which that's our next slide, but we will get into that just yet. And we also use quantitative data and that is disaggregated data usually by census tract.

### Dana Kiernan

And we like to use disaggregated data, which just means broken out into smaller pieces because oftentimes when you have lumps of data, things get lost in there. And so if you wanted to be really specific about the neighborhood that you're in, it's really important to look at that, for instance, by census tract, instead of looking at, for example, a metropolitan statistical area or the MSA, because that encompasses a lot and you're going to miss some of the differences and the disparities that you'll see by just breaking it down into looking at, again, the census tract where by race or by age or by disability status, etc..

## Dana Kiernan

And we also look at population, economic, public health and education data. And so another piece of the story that I'm going to be telling a little bit about today right now is when we look at the south side of Richmond, if we looked at just the quantitative data, we would have come in to see education was educational attainment was really not the same as the rest of Richmond.

## Dana Kiernan

And so as a nonprofit, when we first moved into this neighborhood or came into the neighborhood, if we had just stopped there looking at the quantitative data and come into the community and said, we think you need an education program, it might have been true, but at the same time that might not have gotten the engagement and the sustained interest in the organization that we are lucky to have now.

# Dana Kiernan

Right. But we really wanted to center communities, voices and so in the communities vision and their goals. And so that's where we really brought in the lived experience. And we went into the communities, went to civic associations, to different areas where neighbors were gathering. And we asked what would it look like and take for your community to thrive?

#### Dana Kiernan

And what we heard wasn't anything about education. And that's not to say it wasn't important or is isn't important for that community, for their youth to be well educated or to have the same opportunities through education? It just wasn't top of mind for them. But what they did share was, you know, we want a beautiful and clean neighborhood, so neighborhood pride.

Dana Kiernan

We want a neighborhood where we can continue to live here because housing is getting more expensive and oh, what was the other one? Oh, we want a safe neighborhood, because when we walk down the street, we're afraid that the cars are going too fast. And we want to be able to have a walkable and pedestrian friendly neighborhood. And so what we also found is that these are very much indicators of education.

## Dana Kiernan

And so once we are able to get that complete picture, we're able to also then work with communities to address those issues, which then also end up addressing other issues. And so for me, I guess the little bit of advice that this is something that folks haven't thought about or heard before is when you're asking communities what they want, what they need, and you'll get sustained engagement into your own programs and into your organization because you're actually centering their voices and your centering their decision making, right?

## Dana Kiernan

You're giving power back to communities and you're ending up power sharing with communities. And that for us is a really big part of understanding and using data. How to do that properly and equitably. And so Carlos do you mind showing or going to next slide, but before we do actually that kind of quickly is in this next video, I actually haven't shared yet.

#### Dana Kiernan

So some of the data we saw, like I said, was moving into the southside neighborhood. And you heard we saw that at one point it was all white and then it turned through the seventies, eighties, nineties and beyond to be mostly all black. And so we kind of stopped there with population data, for example, to say, oh, well, that that's an interesting trend and then nothing comes of it.

#### Dana Kiernan

Or we could maybe have guessed that it was white flight and blockbusting, or that redlining had something to do with it. But we really wanted to understand what the experiences of our neighbors are, what they were, and so this video is an interview with one of our steering committee members for our organization, Ms. McQueen, and she shares about her experience living and growing up in the Southside in the seventies.

#### Ms. McQueen

When I first moved here in 1970, this neighborhood was virtually all white. But then we had the real estate dealers, too, coming in, and they were sending letters the same as they're doing today to us

to tell us that they want to buy our homes. But during that time, they were saying that blacks were moving into the neighborhood and therefore the value of the properties were going to go down.

## Ms. McQueen

And that caused a lot of families to decide that they didn't want to stay, that they were going to move out and move somewhere else. And so gradually the neighborhood became virtually all black.

## Dana Kiernan

Thank you. And then if we can just show our last slide, so that way you can. Okay. So again, what really our data philosophy and our data sweet spot means for us is that we're able to center the community's priorities. We're able to have that really complete picture of a community. We're able to build trust and authentic relationships with folks and to engage with the community

## Dana Kiernan

voice so it's strong and it's long lasting. And so I'll give another example of how we used data. So we also did a community survey in 2017 and 2018. And from that community survey we found out the top 11 issues that folks really wanted to address on the Richmond Highway corridor in South Richmond. And then we created a steering committee of neighbors to decide which topics that they wanted to address first.

#### Dana Kiernan

And then from that we ended up addressing neighborhood beautification and housing safety, and then jobs access. And then also along with some of these things about housing, I know that Miss McQueen, if you caught it in the beginning, said just like they're doing now, realtors are coming in, knocking on our door, wanting to buy our homes today. And then also it happened in the past.

#### Dana Kiernan

And so today they're coming in to try and flip homes. And so gentrification has become one of the major issues that Community Voices is working on. But we also maybe would not have gotten that context through, understood what neighbors are going through now without really understanding the lived experience of our neighbors. And so because we're taking the time to listen and center their voices, center what they want to do, letting them decide where the organization is going to put our resources behind.

Dana Kiernan

We've able we've been able to keep folks engaged in the long term and also make the lasting change that neighbors are hoping to see. And it really is based upon the foundation of the sweet spot for us.

# **Carlos Morales**

And and Dana, if I may, I think one of the things that I love about your example, the data sweet spot concept, which I think is it's is very important, right? Because you're talking about the data that probably already exist. You look at and the numbers you looking at the gaps, the needs are there in the community. But just looking at the data alone is not enough.

## **Carlos Morales**

If you want to actually work in the community, if you want to build something in the community that is going to benefit the whole community, you have to look at the other two factors which I love. Actually, you got to look at the context of history and policy because you have to understand what has happened in the history and why things are the way they are right now.

## **Carlos Morales**

But also you want to actually look at the experiences of the community. What are the lived experiences right now? What are the issues that we're struggling with and I think it's powerful in which you actually have those three elements because if you actually take community out and the community has no voice whatsoever, then I don't know if you would be successful in implementing the programs the community needs because there's no empowering inside the community.

# Carlos Morales

Right. Their voices are not being heard. So based on that, how do you actually establish trust with the community in order for them to engage with you and sort of actually be part of the story, tell you about their experiences, actually be willing to be part of committees, be making decisions. So how do you build that trust?

#### Dana Kiernan

I'm so glad that you asked that because also that's part of our cycle of engagement. So listening and connecting with neighbors. So the first thing that we really recommend that you do is you listen right and you listen authentically. A lot of times, communities, community members, especially in communities that have been systematically, systemically and systematically deprived of resources, their voices haven't been heard.

### Dana Kiernan

And so they might have been speaking, but they've been ignored. So really listening authentically is, I would say, the first step. But in order to be able to find folks that want to engage with you, you have to go to where the people are, right? And so you have to go to the communities that you want to engage with.

## Dana Kiernan

And another important factor is hiring people from the communities that you are actually going into. So, for example, the Southside community, like I said, is mostly black. It's also upcoming Hispanic. There's a growing number and then the rest of it is white. And so, for example, I'm probably not the best person to go in to do the direct community engagement and I can come in later for house after relationships have already been addressed or already been established, but like me, is not the person to go in there.

## Dana Kiernan

And so hiring folks in the community, hiring them at a livable wage is really important and then teaching them how to create authentic relationships. But they also already have them, right? So they know their neighbors. They go to church there and they have those connections. And so building trust starts with finding those people who are have similar views to you.

#### Dana Kiernan

We use an organizing technique called a 1 to 1 where it's not exactly the interview it is, but it's a sort of a guided question with a question series with the intent of continued relationship building at the end of it. So you don't just do 1 to 1 and move on to the next person. You always go back to the person to do 1 to 1, and then you follow through.

#### Dana Kiernan

When you make a promise to a community, you follow through with that promise. And so all of these different elements together start to build trust within amongst community members in your organization, because organizations have a lot of power in communities. You come in with resources, you come in sometimes with higher education degrees. And in our society, those things are valued oftentimes more than the lived experience of community members.

Dana Kiernan

So it's coming in, humbly listening, and making sure that the right team members are going in to build trust with the community as well.

# **Carlos Morales**

It's key, right? It is key. And I just want to actually just, you know, tell you what are some of the comments here that we've been getting. Oh, yeah. You know, so we said, you know, from Susan, she say, yes, representation are you on your team is critical and you made that point if you actually are working with a community that is actually mostly black, obviously you got to think about how do we establish, how to actually start establish that relationship.

## Carlos Morales

Right. But here's the other thing too. You are hiring from the community. You are actually also developing skill sets as well. They are. And you already mentioned this. They already have that relationship. Right. So it's it's very important to also have like this, like Susan said, representation on your team of the audience that you're working with. It gives you credibility.

# Carlos Morales

Right. And so and here's the other thing, too. If you look at the context of history and policy, you have to have representation on your team from the community your working with right agencies. Right. You do. And so so it's it's important. So I wanted to actually tell you that from Julie says, Dana, we appreciate your authenticity, authenticity, authenticity.

# Carlos Morales

So that's awesome. We have from Joann to this spot on so grateful to hear this so from I don't know if I'm pronouncing this name right, but it says Tupul. Yes. Community researchers appreciate how intentional your approach your approach is. Dana, thank you for your work. Florencia says yes and yeah. Yes. It makes it more approachable, relatable and trusted and from Florencia again, thank you for speaking truth and teaching us how to be better advocates.

#### **Carlos Morales**

Whoa. So you got some awesome comments in here, Dana, based basically on presentation. So this is this is great. Now, in terms of actually establishing that trust now, are there lessons learned? Were there challenges even don't you have teams you're representing? You know, within your team, within your staff, you are you know, you have community members.

They already have their relationships. They're going into the community. Right. But are there any lessons learned, any challenges that you actually encounter along the way?

### Dana Kiernan

Yes. I'm so glad that you asked because I want to talk about that next. So we have a really strong black staff. They're great. They've worked with the community for a long time. But we knew that that's not the only population that is on the Southside of Richmond. We also know that there's a growing Hispanic population. And so we tried really hard within our first community survey to engage the Hispanic community, and they make up about 10% of the population, according to the census.

## Dana Kiernan

We know that that is often undercounted for this community and we only got a 4% response rate from that community. And we knew that that wasn't on that community, which is oftentimes where organizations stop. They say, well, we tried to engage them. We hired a Spanish speaking person to go into the community. We we tried our best. They weren't interested.

# Dana Kiernan

But that's actually often times not the case. We just weren't doing all the things that we could have been doing as an organization to reach that community. And so we saw that as a gap. We saw that as a failure, but we also believe in failing is a word. And so we thought, okay, we need to make a change. And so we ended up hiring three Latina staff members.

#### Dana Kiernan

And so in our next round of community surveys who were also very connected with the community, so one was working for RPS, another had been in the oh, sorry, excuse me, the Richmond Public School system and another one had been in the community for a long time and a third had come in to help us. And so we were able to reassess and revamp our tactics and how to reach the Hispanic community and what to do and how to do it appropriately and culturally competently.

#### Dana Kiernan

And so in our next round of surveys, we were able to get like an 8% response rate, which was so I was at 16, I don't remember it a much higher response rate, but yeah, we really did not do well the

first time. So that was a challenge and we really had to pivot the way we thought about engaging a different community than what we were used to.

## Dana Kiernan

And then we also oftentimes have to check our assumptions. I forgot to mention that earlier, but I think this is also a good time to mention that is we when we were doing our initial survey, we got back that safety was a really big issue for this community and all of us sort of assumed it was violence and gun safety that was or gun violence or violence in general that was making people feel unsafe in their communities.

## Dana Kiernan

But when we took a little bit deeper and we asked people in one to ones in interviews like, Oh, we heard a lot about safety, like you tell us a little bit more about what makes you feel unsafe and actually turned out to be pedestrian safety. We were off. We were way off. People. Cars were driving too fast.

## Dana Kiernan

People who wanted to be able to bike the kind of bikers and no bike lanes. And so we were we were wrong. We were excited that we were wrong. And we were able to again before we got too far along, thinking about violence or gun safety, pivot to doing a program that reduced speeding through specific intersections where there had been some some accidents and people were feeling unsafe.

# **Carlos Morales**

Well, yes. And so it's interesting how we tend to have lots of assumptions. Right. And so but once we start getting to know the community, obviously we start learning quite a bit. And what happened is we can have all the data in the world, but without that context of history and that lived experience, that data, were just numbers because we are not necessarily providing what the community needed.

#### Carlos Morales

And so that's why I love your example because it's a unique way of sort of actually applying this concept. But at the same time, I love the video in which you actually are have one community member actually telling her story, but she's talking about the context of history and what has happened in the last 50 years or so in actually her lived experience, too.

And so it is powerful and is another great way of actually telling this story. So, Dana, I wanted to actually, you know, because it's I mean, you're getting a lot of great comments here, you know, from Caitlin. So grateful to know folks like you are doing this good work. Power sharing is super important. Thank you for sharing your knowledge and experience.

### **Carlos Morales**

Community Trust. It's Apex. I like the lived experience interviews and incorporating qualitative info. Much of data in my background has been one focus, but this info is crucial to incorporate. Paying it forward from any and not given up. Love it. Yes, thank you for sharing. So I wanted to actually just share those comments with you. We want to thank you for your time and investment in actually telling us your showcase and your example.

#### Carlos Morales

And so again, we really, really, really appreciate it and I thank you so much.

## Dana Kiernan

Thank you so much for for having me for letting me represent Community Voice. And y'all, I'll put my contact information in the chat if y'all have questions or want to reach out about stuff. So thank you so, so much for having me. I really appreciated sharing.

#### **Carlos Morales**

All right. All right. All right. So what do you guys think about this? I promise you, I told you that we were actually having two wonderful organizations to actually showcase their examples and tell me a little bit about their story. This concept of the data sweet spot is, you know, it's it's it's really unique and I love the way that actually they work with the community and so so having said that, we're going to go into example number two and this actually is coming from Meredith Gibson from the Institute for Public Strategies.

#### **Carlos Morales**

And so I am going to welcome Meredith to actually start here.

Meredith Gibson

Okay. Well, thank you, Carlos and his team for having me here to talk about my project that I use and Dana, a big, big shout out to you. I love, love that concept of the sweet spot. And and in my field, we we look at that that also the you know, especially the history and policy context. One of the things that we have really started looking at more closely at is the redlining data.

## Meredith Gibson

And I was happy to see that in your presentation because it is a historical policy that whose legacy continues to impact health equity today. And it seems like there is just more and more research that has been coming out on how neighborhoods that were historically redlined, they are suffering disproportionately from health. Yeah, from health inequities. So it's very that is such a very important component also of what I do.

## Meredith Gibson

And so just to introduce myself. So I'm Meredith Gibson and I'm the Media and GIS Director at the Institute for Public Strategies. We are a public health nonprofit organization based in Southern California. We've got projects and San Diego, Los Angeles and San Bernardino Counties that we've done work all over the country as well as abroad. And we partner with communities to give them tools to build power and elevate their voices so that collectively we can promote health and wellbeing and kind of create those types of neighborhoods where everyone wants to live or work in.

#### Meredith Gibson

And and because we know that not everyone has the same resources or advantages to bring about that positive wellbeing, we also look at those inequities that hold some of these communities back from reaching their full potential. And the purpose of the tool that I'm going to be presenting is to visualize how health disparities in the communities of color specifically are created when substance use and the social determinants of health intersect.

#### Meredith Gibson

And I'll get a little bit more into that in a sec. But specifically, where there is high alcohol density and low measures of the social determinants of health and these are they're maps, and so they can be used to galvanize the community to advocate for policies that improve health and safety. And so one of the ways because kind of like our shining example of how we've uplift or have supported communities comes from Casa de Oro, which is a community in East San Diego County.

Meredith Gibson

It's an unincorporated part of the county. And back in 2015, there were a couple of teenagers from the local high school walking down the street and they kept passing these illegal dispensaries. At the time, cannabis or recreational cannabis was illegal. Nevertheless, the dispensaries kept popping up due to lack of political will or law enforcement and flashing them. And then and they were passing by a ton of liquor stores and they were saying to themselves that about La Jolla, students don't have to walk past this many cannabis dispensaries or liquor stores.

# Meredith Gibson

And if you don't know anything about San Diego County, La Jolla is a very sort of rich, a high income area in the county. And so they did an environmental scan and so they literally had like a piece of paper and they went and they collected data and they looked at the county like number of liquor stores, and they also looked at the liquor stores that were out of compliance.

# Meredith Gibson

And what they found was that there were 19 liquor stores, but the California Alcoholic Beverage Control only technically authorized three liquor stores to be in that census tract. And of the 19 liquor stores that were there, 100% of them were out of compliance with the ABC regulations and so they took the these high school students took this data and they took it to the community and it and from there the ball started rolling.

# Meredith Gibson

And so fast forward to 2024, they Casa de Oro has cleaned up quite a bit. They now have a specific plan that has been approved by the county, San Diego. They have there's more enforcement on these illegal cannabis dispensaries. It used to be that they shut down one cannabis dispensary and another one would pop up. It was like whack a mole.

# Meredith Gibson

And but not to say that that illegal dispensaries aren't still a problem, but much less so than they were in 2015. And then they've also done some more local policies or some more ordinances that bring new licenses, as well as those that have been grandfathered in under compliance so that they have to conform to certain policies that are stay in tune with the nature of the neighborhood.

# Meredith Gibson

But I mentioned that environmental scan because that is one data collection that is part of GIS. And if you could advance to the next slide. So before I get any further, let me just quickly define

geographic information systems or GIS for those who may not be familiar with it. But it is a system for collecting, managing, analyzing and visualizing data.

# Meredith Gibson

And it what is so neat about it is that it allows us to uncover patterns and relationships between geography and the social determinants of health. And GIS is actually used in, in almost every industry, from transportation to pharmaceuticals, even to logistics. It's it's everywhere. And public health I always jokingly say this is that public health is kind of one of the last frontiers when it comes to like new technology.

## Meredith Gibson

But but GIS has been people have been using GIS and very, very much so to uncover, like looking at how location is or is related to health. So again, going back to the redlining example they found in San Diego County that neighborhoods that had been redlined had again, disproportionate number of liquor stores to this day. So again, applying.

# Meredith Gibson

And then we look at like what the say, for instance, the crime or the DUI crashes or the health impacts are in those formerly redlined areas. And what we noticed is that are some disparities in terms of not only income, but also health disparities. And what we have done is we've shared these maps and conducted these spatial analyses, and we shared them with community members and policy makers, such as like city council, our board of supervisors, and also the media.

# Meredith Gibson

And one of my the other hat I wear and IPS is again as the media director. And so we will have media events and we have two or press conferences, if you will, and we'll have visuals set up. And that last conference we had, we had a number of visuals and the one that they all zoned in on was a map that was created to demonstrate alcohol density or that where there is a there are more alcohol bars, restaurants or liquor stores than what ABC said was allowed or authorized.

# Meredith Gibson

But so in its essence, GIS is a powerful tool to data into our policies. If you think about, I mean, humans, that we are a very visual people. And one of the best examples I have of this is before I got into public health, I worked in fire services and I was dispatched to wildfires out in California and Arizona and they can the incident command post, it could be like it could be very deserted during the day because of the firefighters off, you know, fighting the wildfires.

But as soon as we would walk out the door of our trailer, walk outside with a map, I mean, it was like bees to honey. I mean, firefighters all came around to look at the map because it gave them context of what they were looking at. They we had maps for several different audiences. So depending on, you know, who it was, whether it was like for an evacuation route or whether it was for how they had to build a fire line, it told a story.

## Meredith Gibson

It told the firefighters where they were going. It gave them context of what they were facing when they got out into the into the wildfire. Next slide, please. There should be another slide after this. Okay. So you can click once, actually, go ahead and click two more times. There you go. Okay. So I mentioned the social determinants of health before.

## Meredith Gibson

Some of you may be familiar with this infographic right here, but these are the conditions in the environment that affect our health and even our life expectancy. So, yeah, we can count things like, you know, access to parks, for instance, or access to healthy nutritional choices as being part of the social determinants of health is not just about, you know, how much exercise you get or how or you're, you know, like if you have to take certain medications or something.

# Meredith Gibson

So these are things that are outside in our environment. Excuse me. So, you know, we've got the the education access, educational opportunities, economic impact, the neighborhood environment, social context, and then also access to health care. And then you combine those with the location. And so, for instance, it could be a census block, it could be a census tract, it could be a watershed zip code, a municipality, a school district, a county or a state and so forth.

# Meredith Gibson

And you combine those things who to you layer those things to form a pattern or a relationship to see where they exist. And it underscores the premise that place matters, that where we are born, live, learn, work, play, worship and age, all influence our quality of life and even our life expectancy and next slide, please. Next data. Okay, so it diving a little bit more into the social determinants of health because this is what I built my index on. If you health care access and quality so better access indicated by regular source of care frequent use of primary care.

This was associated with reduced odds of heavy drinking. One more time. I should have just had these all at once instead of click and I apologize. This is from a previous presentation. The Social and Community context. Individuals who have higher levels of social support and community cohesion generally are thought to be healthier because they have better links to basic health information and better access to health services and greater financial support with medical costs. Neighborhood in built environment.

## Meredith Gibson

Again, the neighborhood environment shapes alcohol use disorder and there's lots of research that is done on alcohol density and then economic stability. A study from the U.S. revealed that job loss was associated with higher risk of alcohol related health problems and the development of alcohol addiction. The data, however, was inconsistent whether we were talking a short-term loss such as or if it was long term unemployment or temporary unemployment, and therefore education, access and quality.

# Meredith Gibson

An additional 3.61 years of education reduced the risk of alcohol dependency by approximately 50%. So you can see how the presence or absence of the social determinants of health can create conditions in which someone can towards a pathway of substance misuse or substance use disorders.

# Meredith Gibson

And one other thing I wanted to mention about the social and community context. You can also look at crime. When crime becomes a factor of neighborhood disorganization, along with drug selling and graffiti, it creates that broken window effect and social cohesion starts to break down. Now, next slide, please. And next one. There you go. Okay. So I wanted to look at areas in San Diego County that were most vulnerable to alcohol related harms.

#### Meredith Gibson

So, again, looking thinking about DUI crashes, increased violence, crime, sexual assaults, domestic violence, things like that. So I created this alcohol vulnerability index and these are the factors. So in first column I had the social determinants of health indicator, all the ones I just mentioned. And then from the American Community Survey, I pulled out the metrics that I thought best exemplified by if it's the presence or absence would influence how it's influenced by that.

And then my rationale that I just went through and so I wanted to, you know, use that, combine it with alcohol density and alcohol density being the metric defined as the average distance of a person to their nearest liquor store off sale alcohol retailer. And so I combined this into one single measurement of unit to create this index.

## Meredith Gibson

The reason being I initially would just map alcohol density and as I started to understand more about social determinants of health, I realized that it wasn't enough just to know you have that one calculation. And so it was alcohol harm prevention. It's a very it's a it's a complex problem that involves very intricate solutions. And so this by doing it this way, I tried to capture as much as I could in this iteration.

## Meredith Gibson

I'll talk a little bit more about what's planned ahead that does speak to the social determinants of Health in this particular index. I did not include race or ethnicity into the index because it was important to focus on what people experience rather than who they are. But I will demonstrate a visualization in this presentation that does take into account race and ethnicity.

#### Meredith Gibson

Let's see. Next slide, please. Okay. So actually, Carlos, if you don't mind, I'd like to share my screen.

Carlos Morales

Yep. I'll stop sharing right now.

**Carlos Morales** 

Okay Okay.

Meredith Gibson

Okay. Can you see my map up on your screen?

Carlos Morales

Great. Okay, so this one from the San Diego County right here. This is a map of the Alcohol Vulnerability Index, or AVI. And I'm going to open up my legend here, and I'm where it says high - high. So this is called a bivariate map. I don't want you to feel intimidated. It sounds a lot smarter than it really is.

#### Meredith Gibson

It's basically two variables that have been mapped combined to create one color. Excuse me. So in this diamond here that I'm looking at, I am mostly concerned with the extremes. Okay? So I'm looking where it says high - high, and that means high as high percentile and high percent non-Whites. I'm also interested in comparing that to the regions that are shaded beige here with a low AVI percentile low nonwhite.

## Meredith Gibson

It's down here in south, in the south part of the county this is the South Bay region and border region. We've got Tijuana right there over the border. This is a heavily concentrated Latino population here. I because of what I know about having lived in that region for a long time, I do know that West Chula Vista here, this side right here, these brown census tracts, I'm not surprised to find that it has a very high, above percentile, high score.

# Meredith Gibson

The higher the score, the more vulnerable it is to alcohol related harms. I'm not surprised to see that it has a very high AVI score and a very high concentration of percentage of nonwhite population. I'm going to compare that now to the areas that are shaded with the sort of this off-white beige color. Okay. These are again, census tracts.

#### Meredith Gibson

These represent areas that have a low alcohol vulnerability index score and a low percentage of non-white population. So basically majority white. Again not not surprised by this around here is La Jolla that I mentioned earlier in the presentation over here is around Casa de Oro is I'm not at all surprised by this. And the reason that we use this to kind of compare and contrast, like why is it in San Diego?

Yes.

What policies do we have going on and either all of San Diego County or in the there are 18 municipalities in the county that is creating such a disparity. So again like we use these types of maps to inform policymakers and kind of stir up a little bit of competition, you know, if you will, like, you know, no one wants to be the representative on the board of supervisor

## Meredith Gibson

This region is called out because it has poor health outcomes, for instance. So using a percentile is, a very useful way of demonstrating to these policymakers and community members what's going on. So, for instance, if I click on this census tract right here, can you see this? Oh, it doesn't come up or does it come up this past year OC rate.

## Meredith Gibson

So you will see down here the average score is 709. So that's high. The highest you can get is a 730. But what's more important is the AVI percentile. So in this census tract, 97.1% of the other census tracts in San Diego County is less vulnerable excuse me is more vulnerable to alcohol related harms. Conversely, 2.9%, only 2.9% are less vulnerable.

# Meredith Gibson

So this because it's got such a high percentile that high number it's it's in bad it's in bad shape when it comes to alcohol related harms and vulnerability. There are other types of analyses that you can include. I won't go into those, but it's that just or explain it. But this isn't a sorry that's not the one I want.

# Meredith Gibson

This is a crime optimized hot spot analysis is so you'll see that where these dark red. Oh can you see that. I'm not sure if you can see and. Yes, okay, great. So this is like where there are a lot of concentrated hot spots of crime and you can use it as a layer so you can see how it's going.

#### Meredith Gibson

You know, you can see that those hot spots are happening around, not surprisingly, where these brown areas are in as well down here. So GIS allows again like for that layering of information so that you can look at relationships. And I think that's that's all I that's all I have for my presentation.

Well, thank you, Meredith. This actually was great. And so we have a few more minutes. And so here is actually what I want to make sure that we do here. I want to actually there are people actually asking questions. They have comments about your presentation. And I want to make sure that I actually I do this. We have about 10 minutes left, so I want to take advantage of that time.

## **Carlos Morales**

And so, you know, from Rosemary in the comment section, she said that social determinants of health slide would associate a negative outcome is very informative. From Ventas, she said that this is the best social determinants of health slide I've seen to date. From Matthew, it says using maps in New Mexico, I believe alcohol density shows a partial picture.

## **Carlos Morales**

Certain restaurants with alcohol, license and retail places are different. Here's a question for you, Meredith, how has the changing landscape of legality for substances affected your work? I'm curious. I'm curious if trying to increase the crackdown on illegal dispensaries could have potentially impacted increased or increased criminal criminal justice involvement for people in the community.

#### Meredith Gibson

That's a very good question and something that has been, I guess, on top of everyone's mind ever since they legalized California legalized cannabis, for instance, On the one hand it was meant to bring illegal businesses into a regulated framework. And unfortunately, what it did was that it made the price of cannabis so high that illegal dispensaries continue to proliferate and law enforcement has joined a much better job because some of that revenue from cannabis does have to go to law enforcement as well as social equity programs.

#### Meredith Gibson

More so from an economic point of view not so much from a health equity point of view, but yeah.

#### **Carlos Morales**

Sure. All right. From Betty James, she says, I love the GIS strategic approach to inspire change, actually, policymakers to the advantage of getting to vulnerable populations. GIS it's just a powerful tool to tell these stories from Dana. And so thank you. Great information. The map index and the

way to visualization. So I'm just sort of actually reading all this, but I want to make sure that I also get to the questions here.

## **Carlos Morales**

Right. Let's see here. I think in I'm trying to actually see if this question is actually relevant to you. Okay. I have a question here. Is there a source for alcohol density or AVI by municipality or county? Is that local, state or federal?

#### Meredith Gibson

So for California, it's state through the there's license information through the California Alcoholic Beverage Control. Now, for other states, it I think it depends on if it's like a state controlled industry or if was I'm losing my words that like if it's where the state owns basically like the the alcohol outlets or whether it's privately owned but for us I know that like our license is whatever if any municipality if it grants a permit to say a liquor store owner who wants to open up another liquor store, the municipality will approve it.

## Meredith Gibson

And then California ABC will issue the license regardless of whether or not there are a number of authorized licenses. Again, like know you could only have like maybe three licenses in a census tract, but as long as your municipality appraised the license, the ABC will will issue it or allows the permit, ABC will issue that license. So as far as I know, I mean, I've only looked at the California law, the landscape of alcohol in California.

#### Meredith Gibson

But I do think that if you have like a state alcohol commission or something and then on their website, I think that information is supposed to be publicly available. Oh, I'm sorry. On mute. Sorry. Or was I.

#### **Carlos Morales**

I'm sorry. Yeah, I'm sorry. No, no, no. That that's that's just me. So I have another question here from Jennifer. What mapping software are you using?

Meredith Gibson

So I use ArcGIS at the Esri ArcGIS desktop and online. But all of that is to say now that is a paid software. But I just want to make it clear that there are lots of other open source free software out there that is just as good. I use R-GIS. That's what I learned on over 20 years ago when I first started doing GIS.

# Meredith Gibson

So I, I would recommend using it but also compare and find some open source ones and see if maybe that has a better, you know, that it's it's better for your organization. Sure. One other thing I'm sorry. Also, one other thing is that you may not even necessarily have to have GIS software. There are a lot of indexes out there of data sources that they have their map.

# Meredith Gibson

And you can like for instance, I'm just going to use a child opportunity index, for instance, they have their own mapping portal and it's very easy to create your own map. You can download the data, some of the indexes you can even upload your own data and create a map that way.

# **Carlos Morales**

Thank you. Let's see want to make sure that I'm actually not missing anything. Do you have. Okay. From Mary Jane again. Meredith looking at social determinants of health and being able to map it and connect it to behavioral health is phenomenal. Do you have a link to this story that you did? I would love to look at it and see how can inspire study in our state.

# Meredith Gibson

Sure, I can put it in the chat.

**Carlos Morales** 

All right.

# Meredith Gibson

And I'll also put my my contact information in there if you have any questions. I'm very passionate about GIS. I love to talk to people about this. So.

**Carlos Morales** 

Yeah, no. And we appreciate it. We appreciate your presentation. This has actually has been great. I learned quite a bit as well. I think, you know, I just want to make sure that if you look at the chat you actually were putting in here, some of the resources, um, there's a link to the software that Meredith is using.

## **Carlos Morales**

So we put that in the chat as well. For those of you who might be interested. And so also, we might not have to. Might not have enough time to answer all the questions. So I just wanted to remind you that questions that we don't answer in the workshop, we're going to create a Q&A document with the answers there.

## **Carlos Morales**

Also, I want to remind you to actually register for next week the Post Workshop Q&A. We're meeting for an hour. Right. And we'll go over as you register, submit your question. And we want to make sure that we'll have the answers for that when our workshop. Meredith, I want to thank you once again for your time. There was this was amazing.

#### **Carlos Morales**

Dana, thank you so much. You both actually had made my day. I am actually so honored that you actually, you know, decided to submit your data visualization examples. I appreciate you working with me and with the rest of team. Thank you. Thank you so much. By actually looking at the comments, people loved this workshop because they actually learned quite a bit when it comes to data visualization.

#### **Carlos Morales**

Look, and actually how you can actually use it in real examples by two wonderful organizations. So this was great. Thank you. I'm actually looking at some some of the comments here. And so I appreciate it. Appreciate it. So we are close to the end. And so I want to make sure that I don't go without mentioning some amount announcements because I'm not really here.

#### **Carlos Morales**

So I want thank you for joining us today. Like I said, we're going to be sharing the related resources that are recorded once available at the NNED share website. Remember to sign up for the the the limited capacity workshop Q&A session on March 28th from 2 to 3 p.m. Eastern Time. So you registered the link. Submit your questions as well.

And so I want to I want to thank you on behalf of the SAMHSA Office of Behavioral Health Equity. We want to acknowledge and thank you for being here. And we look forward to being with you throughout the series. Thank you so much for your time, everyone. Have a wonderful rest of the day and rest of the week. Bye bye.