>> Hello, welcome. You're here for the places we go after a ripple and your presenter is Rena.

>> Hello and welcome everyone.

We're almost at the finish line, right. It's been exhilarating, exciting, lots of knowledge, lots of meeting people, lots of walking, probably got a lot of steps in. I work for the Ohio Department of Health in the Ohio EHDI program. I know some people in the audience. Before we begin though could we call out at least which states you're from so I can get a better understanding of who we have. I know there's a lot of Ohio people. We'll start with you, if you wouldn't mind. So I have been with the EHDI program, this is my 21st year. Currently I am overseeing all of the birthing hospitals for newborn hearing screening, the children's hospitals in the local health department. Today is a presentation I wanted to share with you in terms of a quality improvement project that we completed. Let me make sure my advance is working. And all of a sudden it is no longer working.

Give me a minute while we take care of, oh there we go. A little stronger press. Running out of energy since it's almost the end of the conference. So we had a quality improvement project that was part of our HERSA federal funding. It began in November of 2017 and lasted through March of 2020. The HRSA grant year though began April 1, 2017, and it ended, the HRSA grant for this particular project started April 1, 2017, and ended on March 30, 2020.

However this project began in November 2017. And I'll talk to you a little bit about why there was some delays. We selected one county in the state of Ohio and that was Lucas County. We utilized several data metrics that we'll look at in a few slides. And basically what we did was we developed a care coordination plan in this one county that stemmed from EHDI, but we really took it beyond EHDI. When we think about EHDI programming, we're looking at newborns, that time period after that up until age three, but then what do we do? We've done our EHDI work? No we haven't.

All of us are here because we're striving to increase the services long term. We want great outcomes for our kiddos as they transition. So with this project we had the ability to expand outside of the EHDI system through the school age to incorporate all of these community level partners. So again we looked at the data metrics that we utilized were maternal metrics, maternal age, demographics, race and ethnicity. We also looked at some data from the Ohio Equity Institute. And what we looked at was social determinants of health, birth outcomes. And our Ohio Equity Institute has a few birth outcomes and 2.0 for the Ohio Equity Institute for better birth outcomes. So we utilize some of that data in selecting this county. Basically what we did was we wanted to engage these key stakeholders. When I mentioned the grant period started on March 1st or I'm sorry April 1st, it took from April 1st until November for us to gather our stakeholders because there were so many stakeholders. What we do from the EHDI program, we're working at this higher bird's eye Level and we wanted to get to the grassroots or the ground level into the county. So working from that level, finding people to come together and sort of meet was pretty alarming in terms of finding people that were key stakeholders that would come, that would share some of this information with us and work on this community collaborative.

This is just a quick snapshot of some of our core members. While I'm not getting into the details and foundations of how we got into the this learning collaborative, today's presentation is really the final effects of what we saw from our three year project. I'll give you a quick like foundation. We had core members, we met monthly for two and a half years which is Lucas County is around two and a half hours from where I live in Columbus. All of the meetings were in person, we did nothing virtually. There was no virtual anything at that time, it was pre-Covid. So we met monthly. In addition to monthly meetings, we had parent meetings, we had larger meetings where we invited more community members. We looked at meetings with physicians, with pediatric residents. In fact we did several presentations for pediatric residents at several area hospitals within Lucas County. So this is the core group, but we had a larger extended group of people that were working towards this collaborative work. So I wanted to give you a quick snapshot of some of the efforts. So as I mentioned, we did pediatrics residents lecture, we actually had our media center come and recorded it live. So we do have that available. We worked on several types of publications.

We had parent meetings at the local library. And again we wanted to make this very accessible for the community members. We didn't want any information that was shared or presented to feel alarming or overwhelming. So this truly was a community-based effort. We also worked on several medical home initiatives. While I'm not going to go over this fully in my presentation, I have one packet and I will pass it around for you to take a look. One of the pieces or packets we created was a medical home toolkit. We created one for the medical home. We essentially have one for parents and professionals.

And we have several other pieces of materials such as parent resources, referrals for genetic evaluation, risk factor information, and information on CDC milestones. So I'll go ahead and pass this around. You can take a look at it. But this was one aspect that came as a result of the work with our Lucas County collaborative.

 So what we did was we looked at some of the maternal demographics. As I mentioned we looked at the Ohio Equity Institute data. While this is my second presentation on this topic, so in 2019, I presented the initial Lucas County learning collaborative. So the data that I have here is the 2019 and the 2020 since this is really where we're looking at the end of the project. So when we looked at this, this was specifically for Lucas County.

And we have a lot of data here, but I wanted to highlight some of the areas where we looked at maternal age. That seemed to be pretty prevalent in terms of the information that we looked at across the board. Those with diagnostic follow up, those that were total referred, total pass, and the information had crossed.

We also looked at maternal education. While high school education and some college degree are very, very close across the board. Some of these factors may have contributed as to why our data looked the way it did before we had the collaborative and then looking at the information after the collaborative. We also looked at maternal ethnicity and then maternal race.

 So as we take a look at the data and we're sort of jumping ahead in terms of some of the information, but I think the data is very powerful. So when we began the project in 2017, if you look at the data in table one, you can take a look and see the passes pretty much remained the same across the years. So we didn't really see much of a difference. When we looked at the refers in 2020.

And I do want to make one quick statement just about 2020, since we know we were entering a pandemic and while the project went through March 30, 2020, we saw a pretty big decline in terms of some of the follow up and some of those things because Ohio did have a state shut down that occurred on March 13, 2020.

So I like to look a full year's of data so that we're comparing a full years worth of data in 2019. But in 2020, when you look at the information in terms of refers, the refers jumped up a little bit in 2020, perhaps because of the shut down. When we look at table two and look at diagnostics after a non-pass, we look at in 2019 the number of losses increased to 11.9%. So while the numbers in this county were still small, there were ongoing foundational efforts that we had in our state. So our state has audiology group that developed standardized diagnostic audiology protocols.

We have been working on that since 2013 and 2014 to spread that work. So standardizeded testing after a non-passed newborn hearing screening, and spreading that work across the diagnostic centers throughout our state. We have a statewide hearing screening subcommittee, and then we have lots of statewide partners, many of my Ohio groupies sitting in the room have contributed significant amounts of time and efforts towards our statewide EHDI programming and increasing a lot of our statewide EHDI follow up.

 So when we looked at the information in terms of table two, we looked at why are these efforts like what are the efforts that are truly contributing to this information? Moving on, then we looked at table three which is our EI enrollment. When we looked at the EI enrollment across the years from 2017 to 2020, we looked at an increase in EI enrollment. So when we look at 2017, this was before our Lucas County learning collaborative. The number or the percentage enrolled in early intervention was just around 27%. And as the efforts of the Lucas County learning collaborative grew and increased and we had those community-level engagements, we saw the increase in early intervention enrollment in 2020 to be 57%. We also saw a decrease in the loss to follow up in diagnostics and the loss to follow up to EI decreased to 14%. So some thoughts that we can think about in terms of the work that we did with the Lucas County learning collaborative.

So when we brought our statewide partners together, we looked at potential threats that may be available or present within the community. And we looked at the information in terms of how do we change behavior? How do we change the perceptions? How are people in the community perperceiving things? Whether that's your professionals, your audiologists, your screeners, looking at the community-level partners, are people working in silos? Are they not necessarily connecting the state EHDI program? Are they not connecting when a child is diagnosed with hearing loss or deafness, what the child needs.

What happens after EI enrollment in terms of transition to the Ohio Department of Education from part B to part C services.

So when we looked at our group of community members, we brought everyone together and we discussed the opportunities that may exist in terms of how do we transition this baby, this family, this child from the EHDI system to the preschool system, to the part B system, part C to part B, and then how do we work together to increase that across the span of time? So we did a lot of work in terms of changing those perceived barriers and bringing people to the table.

Allowing them to share their knowledge how things were happening within this particular county and what improvements we could make. So a lot of this is really based on QI methodology and QI work. Really, really small steps, taking those small ideas, testing things out and expanding them if they worked and if they didn't work, then we went back to the table with our core group of members and looked at opportunities on how we could increase these efforts. We also looked at some of the things in terms of working with the school system. So looking at the teachers of the deaf. Working in terms of how do we connect this child, this family to all of the players that are in the community. We also worked with a developmental pediatrician who spearheaded some campaigns within Lucas County in terms of working with her local area pediatricians and the developmental specialists. And then also working with some of the university level settings within the area. So really I mean when we look at the work that we did Lucas County, this was a small county and a small project. As we had this almost three year project, we saw lots of the work have transformative efforts just like we looked at in terms of the data. So we saw that increase in EI enrollment which Lucas County when we spoke with parents and families, they had a difficult time understanding what early intervention services meant for their child that was deaf and hard of hearing. What did the transition mean for them? Who was the educational audiologist and why would my child need one?

Why is it important to talk about communication language acquisition. So there were all of these different factors coming into play as we brought all of these community-level partners together. And we really worked together to assure that they had the opportunity to work through some of the dynamics that were taking place in this small county. So when we look at some of the work that we did in Ohio Lucas County, we really are looking at how do we increase the efforts of one small county and how do we take that to a more sustained approach? There is really not a good way to go from a county level to a statewide level, since this project was as you can see some of the numbers were very small, we really had to look at some different avenues on how to spread and sustain some of this work. So we have a number of groups in our state, we have pediatric audiologists that are working together. We are currently just completing a revision of our statewide diagnostic protocols and hopefully we'll have those in the hands of audiologists statewide. We're looking at transitioning from a statewide pediatric audiology directory to including the information online with the EHDI pals website, just to increase that access level as we share more information across the efforts with our hospitals and all of the EHDI system staff. It's really important to be able to spread this work.

We're utilizing some QR codes on parent letters, translating information into 12 different languages to access different levels of maternal demographics.

Then we have a lot of coordinated efforts with a family support agency and some sub grantees. So this toolkit, what we did with this information in terms of the Lucas County work was I worked with public health nurses across the state and presented in five regions so we implemented all of this work statewide, shared the toolkit, and the toolkit has been utilized not only by professionals, but also parents as there's parent information in there. Of course we wouldn't share the very first document that may not be parent ed friendly. But we also updated some materials that could be shared with parents. We're also collaborating with other programs on the maternal level and we hope to be working with prenatal programs that have ongoing connections so that we can share information about newborn hearing screening as well as our EHDI system, WIC, home visiting, early intervention and other public health programs. We really want to look at the areas where we have high loss to follow up rates in our state in terms of loss to follow up to diagnostics but then loss to follow up to early intervention. Currently in our state, we really see the highest loss to follow up to early intervention. So when we look at the efforts of Lucas County, while the numbers are small, we see an increase in early intervention enrollment, we can possibly attribute that to having these community-level collaborations and then higher levels of engagement so that as we're working together from the state health department, we're also taking a look at our XHUPT-level -- community-level partners all across the state so that they have the information they need and we have a much more seamless system for our babies and children, and better outcomes for these babies and children and that families feel engaged and connected to our system. Then I would like to thank Mallory as they tabulated the data for me for this presentation. And here's my contact information, and I'll go ahead and take some questions if anyone has any.

>> I was curious, you mentioned in the beginning this was done pre-Covid. So all in person. And I was just curious if you were to recreate this in another county if you think virtual would help in any way or support the efforts that you did or if you think it would have not changed anything. So that's the first part of my question and then I'll go ahead and give you the second part of the question.

So if a stakeholder in another part of Ohio were to say Rena, this is so good, can we recreate this in Richland County, do you have like a quick and easy like here, this is how we did it so we can recreate it. Or do you think we would need, I'm not asking, I'm like asking the question but I promise I'm not getting ready to loop you into something. I was just curious if it would be easy to recreate in another county considering that virtual or in person part.

>> Thanks, those are great questions. It's really difficult because I think the work that we did was in person and I find a lot of significant value in meeting in person with these community-level partners. Our very first meeting, we sat down at the table and we really just discussed all of the challenges, the issues, we laid them down at the table, we listened. From the state EHDI program perspective, we listened. I think you can try to create that in a virtual environment, but I do think that that in and of itself brings a lot of challenges. I would say if we were to continue this type of work, doing it in person is probably much more meaningful for the partners in those areas, but I can also understand the logistics of timing, the ability to attend, the frequency of attendance. I mean we met monthly and it wasn't for one hour, it was several hours, it was after work about 4:00 p.m.

So that people did not have to take time away from their day, parents could make some arrangements for evening child care or not have to take time off of work. So I think that that's a really difficult question because a lot of this work happened in question and just really brainstorming ideas, coming up with various projects.

I mean I think it could be done in a virtual environment, but I don't know how meaningful it would be. But that's another QI test, I think that we could see.

So does that answer your question? The second part of your question, I think if we had to recreate this project, we used a lot of data metrics so while I didn't spend a whole lot of time talking about that, I do think that we could take this project and recreate it the way we created it then. Today's presentation wasn't really about the foundational work that we did with Lucas County, but it was really hard work. We looked at data metrics, we looked at the entire state. We looked at pockets of where we had ongoing efforts in our more urban areas and we really wanted to get to an area where that was underserved and underutilized in terms of service delivery. And so a lot of efforts went into it and making those contacts, getting people on board, having this ongoing group for three years, when you think about it, we're all super busy and how many more things can we add to our to do list and how many meetings can we go to and not just a one hour meeting, like a several hour meeting on a weeknight. So I do think that the project could be recreated, but it does take a lot of efforts. So speaking to which, like our pediatric audiology work group in our state is looking at EHDI regional networks. Moving from a county level to a regional level is much more seamless and timely.

Within that region you may be able to look at data and demographics and then drill down maybe on certain counties, certain areas within a community where some of these efforts could take place. And as we see one drop creates this bigger ripple effect that spreads within the community, I think that certainly would be a place to start instead of maybe doing one county because we do have counties in Ohio that are very underserved in terms of areas and then distance between hospitals or diagnostic centers and community-level services.

Does that help? Super. Anyone else? I am certainly around and thank you very much.