Critical Congenital Heart Disease/Health Information Technology Webinar
April 2015

Presenters: Lura Daussat, MPH from OZ Systems and John Eichwald, MA from the Centers of Disease Control and Prevention on EHDI and CCHD: Current Standards in HIT

Please direct all comments/questions pertaining to this webinar to Thalia Wood at Thalia.wood@aphl.org or 240-485-2701 or Careema Yusuf at Careema.yusuf@aphl.org or 240-485-2761.

Careema Yusuf:	Can you hear me now?
Lura Daussat:	Yeah.
Careema Yusuf:	Okay, perfect. It was just going through its motions I guess to begin recording. Great. Drew, if you'd like to please begin the introduction. Thank you.
Drew Richardson:	Yeah, I want to make sure everyone can hear me first.
Careema Yusuf:	Yes, we can. Thank you.
Drew Richardson:	All right. We have two speakers today. Is John going first or is Lura going first?
Careema Yusuf:	I believe they're going to go together so I would just introduce them.
Drew Richardson:	Okay, thank you. All right. The first speaker is John Eichwald. John is the Child Development and Disability Branch Chief within the Centers for Disease Control and Prevention's National Center on Birth Defects and Developmental Disabilities in Atlanta, Georgia. His related work for today's presentation has included collaboration with the multiple organizations focused on National Health Information Technology efforts to foster adoption of a national set of standards, specifications and

implementation guidance directed at interoperability of Public Health Information Systems.

Lura Daussat is an Account Manager for OZ Systems and specializes in development, training and implementation for state CCHD or Critical Congenital Heart Disease, Newborn Hearing and Metabolic Genetic Screening Programs. With the focus on standards and interoperability for public health, she is active on the Public Health and Emergency Response work group of Health Level 7 or HL7 formulating draft standards for point-of-care newborn screening programs, EHDI and CCHD. Lura has been a US Peace Corps volunteer in Ghana, West Africa and today she's advancing educational scholarships for Ghana students by serving on the Board of Directors of GIVE, Ghana Initiative for Valued Education. She holds a BS degree in Biology from the University of North Texas, and a Master of Public Health degree in International Health and Development from Tulane University School of Public Health and Tropical Medicine.

With that, I'll turn it over to you two.

Lura Daussat: Hi everyone. John and I are going to co-present this so our talk today is going to be on EHDI and CCHD and the current standards in HIT. I'll start with a few introductory slides then John will continue on with some specifics about interoperability of tips and information on the implementation guides from HL7 for EHDI and CCHD and then John will conclude with some information on the many tools and the hearing sign of care, another standard from IHE. John, do you want to add anything before we start?

John Eichwald: No. Go ahead Lura.

Lura Daussat: Okay, great. All right, so if we could go to our next slide. I want to actually read this quote. It's a really interesting one. "As starting point, I need to bring some attention to the urgency to adopt a uniform publication system of past hospital statistic records. There exists a growing belief that in every hospital, even though it's with the best work conditions, there's a large, unnecessary waste of life. In an attempt to reach the truth, I've sought information everywhere but in few cases was I able to get hospital records adequate for any comparison purpose. If used smartly, these statistics will help. Will tell us the actual relative value of some current measures and some forms for treatment." With that in mind, hearing that, it would be nice to have statistics. Who actually said that, it was Florence Nightingale. An English nurse with an interest in statistics in 1863. For over 150 years, we've been trying to get data to use comparatively to ensure that programs, whether they be hospital driven

or public health driven, are relative in providing value to the people they're serving. Next slide please.

There's that public health program, there is a need for data to help assess program implementations to that screening program protocol. Are they working? Are they the right ones and also to ensure that every baby that is impacted specifically by the newborn screening programs receiving the care. Are they being screened? Are they being adequately provided the care that they need? Particularly for CCHD, which is a new screening program, it would be helpful to have good data to assess the algorithms and ensure that that's working correctly for your state or for the program it's implementing. As Dr. Zuckerman mentioned at previous presentation, paper reporting is not inoperable, will not be optimal for CCHD. There will be so much of it and with gathering that information, you're going to be able to make a good assessment about you CCHD program. Next slide.

With that, we found an opportunity for standardized data exchange for the system background. Traditionally, for EDHI, for newborn screening training, when data is exchanged from a device, it's traditionally unstructured or in a proprietary format. It is not consistent usually and is not very inter-operable. There's variations in the data content and the quality and the usabilities when those results are generated from a device. The CCHD, there's actually no history of the data exchange. There was some work done at IHE which is integrating the healthcare enterprises. Organizations on the patient care device using [inaudible 00:05:28]. With that, we're going to take what they had done in IHE and leverage that for CCHD to provide an opportunity to exchange that data here. Next slide. I'll turn it over to John at this point.

John Eichwald: Thanks Lura. Today's presentation, we're really going to break this down into sort of 3 different areas which can be considered 3 types of standards or 3 types of interoperability. We're talking about semantic interoperability or standards, technical and process. The first one we're going to talk about is semantic and that is the information that we're moving between systems, we want to make sure that we're talking the same language. The example I like to give the best is, leaders use the word program. If you're talking to somebody in Public Health, they don't really think of a Public Health program. You're talking to your IT person, their thinking of a data system or some sort of program. We have to make sure that we're talking the same language.

There are a number of standards that are already set out there but you're probably familiar with these, ITE, CPT, you may also be familiar with LOINC, Logical Observations [inaudible 00:06:42] Names and Codes,

SNOMED is the nomenclature medicine. We have pharmacy codes, we ASCI codes, there are image codes and a number of different value sets. In newborn screening, we're actually fairly lucky because of the good work at the national library of medicine, they've already given us a series of the kind of definitions and the standard that we should be using at least in this country for those conditions being screened across the United States and mostly by the Advisory Committee on Heritable Disorders in Newborns and Children on. We're doing well in semantics.

The next area that we're looking at are technical standards and that is once we know what we're talking about, how do we move this information between the 2 systems so that we can make sure that the information is moved correctly. What we're talking about here is essentially have content information and then we need that technical standard to message that information to the person that's going to be receiving it. Much of this is done in HL7 and one of the great experts around is Lura and I'm going to go ahead and turn it over to Lura to talk about technical standard.

Lura Daussat: With that, for technical standard, with EHDI and CCHD, we did see that there was a need for the solutions for the data exchange to exchange from the device to public health. The idea was to create implementation guides at HL7 for these 2 programs to facilitate that standardized data exchange, eliminate the proprietary data and utilize the resources at HL7 including the ORU^R01 that which is a result message and then the PCD-01 profile from IHE. Next slide please. This is some background. I'm sure many of you know what HL7 is but I thought, if you didn't, this would be an interesting slide and actually, the image on the right where it says the HL with the 7, I just recently learned so I thought I'd share it.

What is HL7? It stands for Health Level 7. It's a standards development organization. They develop technical standards to exchange information at the application level. It was founded by hospital ITs since 1987 and why is it called HL7. This is the piece I just recently learned so I thought it was kind of interesting. It's the 7th layer of the Open Systems Interconnection network model and is actually the application level and so healthcare information exchange standards are at the application level. That's why it's called HL7. Next slide.

Here's our mission statement. HL7's goal is to provide standards for interoperability to improve care, optimize workflow, reduce ambiguity and acknowledge transfer among all of the stakeholders including health care providers, government agencies, the vendor community, other NGOs and patients. For more about it, you can go to HL7.org/about but I

do think it's a very, kind of back to that Florence Nightingale quote of providing value and looking at programs. Their goal is to help achieve those items. Next slide please. An additional background about HL7, it is completely volunteer-based. They do follow normal procedures, [inaudible 00:10:10] voting, democratic members include, which this is very, very helpful with the development of the implementation guide.

Vendors, insurance companies, government and state hospitals, healthcare and laboratories so people around the table from all of these backgrounds and all of them had a little bit of a different viewpoint which was very helpful and beneficial to the creation of this guide because we had inputs from so many different people. That's a little bit about HL7. All right. Next slide please. Why implementation guys? Why take, go forth and try and create an implementation guide for patient care devices for EHDI and CCHD? It standardizes that information from the point of care device to the interested consumer such as like public health. As I mentioned a few times already, we were going to leverage that PCD-01 profile from IHE. Next slide.

The benefits of taking data directly from the device. It provides verifiable data. You'd also reduce your manual entry. It would help us acquire comprehensive results from the patients. I'm just getting the last screen, or pass or a fail. On the PCHD screen, you actually could get the oxygen saturation levels, you could get the specific with the path and then refer for both ears on hearing screening with how many times a day they were screened and it also allows the same language to be used while communicating these results. I'm sure many of you have seen a variety of things that represent Path T, Path M. For hearing training [inaudible 00:11:41], failed, R, there are a variety of different things so these development codes are using code of language to transmit this information. Everyone knows what a certain code means. Next one please.

The audience targets for the implementation guide were standard development organizations, EHR and public health vendors, equipment vendors, public health departments and local and state departments of health. The use cases that we addressed in the 2 [inaudible 00:12:13] and they were very similar although a little bit different or from the device to public health, public health information systems, from the device to an electronic health record and from the electronic health record to a public health information system. From third use case, that was really interesting. At one of our ballot reconciliation sessions during the working groups, really sitting around doing ballot reconciliation and we were having discussions on what would be sent to an EHR from an EHR

and one of the guys there in the table is [inaudible 00:12:46]. He said, "It's not easy to use case from any EHR to public health. This would be a good format to take information from the EHR and send it on to public health for hearing PCHD." We included that use case. It was very beneficial to have all those parties around the table to contribute to that. Without that participation, we probably would've missed that use case. Next slide.

Here is just an interaction diagram of what actually happened and this one is for hearing screening. The hearing screening is administered on the newborn and ORU^R01 messages generated from the device and then that message is then sent on to public health information system where it's received and acknowledged and the message is sent back whether it's being processed or rejected [inaudible 00:13:37]. Next slide please. Here are 2 [inaudible 00:13:43] them. You can see that they [inaudible 00:13:46] a little bit different with went out in February 2014 with the EHDI guide and August 2014 with PCHD. [Inaudible 00:13:55] why it took so long to develop these. Next slide.

This is a history of it. The EHDI implementation guide. It did initially go out for ballot December 2012 after our first round of balloting, we had a major overhaul where we needed to restructure it. Comments were reconciled and they were completed in December 2013 and finally published in January 2014. DSTU, the DSTU is the Draft Standard for Trial Use. It's actually out there and available for use by device manufacturers, public health programs, EHR. They can use that to spend back and forth [inaudible 00:14:32]. Next slide please. For the implementation guide, this is the final balloting that we did, we had 38 affirmative votes, 2 negatives, 68 abstentions and 18 not returned. You can see we had quite a bit of feedback and review of the implementation guide as we developed this. Next one please.

Our final revisions of the EHDI implementation, as we overhaul the data types chapter which you're probably familiar with HL7 implementation. It's very detailed and we missed it on the first one and we updated it. We also restructured the OBR and OBX presentation. Those are the results section. If you're familiar with the ELR, which is the Electronic Laboratory Results implementation guide, we copied or mimicked what they had done there in their presentation so it was very clear and we also updated the codes to use SNOMED instead of LOINC. Next slide please.

Here's the information that can be actually sent in the EHDI message. [Inaudible 00:15:38] message header which is standard for the HL7 message. Your patient information, your next of kin information, your

patient visit information and then your OBR and OBX information and just to note, the next of kin was added when we incorporated that information. The use case for the EHR to public health business program there is unlikely that you go get it from a device but you could get it from a device because they do store that information. Next slide.

In the content that can be sent in the message, the version 2.6 message is the [inaudible 00:16:12] results, [inaudible 00:16:14] results, your patient demographic, specifically your patient name and your MRN, the next of kin, the date and time of tests, [inaudible 00:16:22], your device details, the duration and errors about the messaging process. Some of these, not all devices have we included everything because there are some devices that do have durations but not all devices have that. Next slide please. You can also [inaudible 00:16:39] factors that some devices could capture any hearing comments or discussions, the reason not before performance can also be sent and we added the patient visit segment indicate if it was inpatient or outpatient [inaudible 00:16:52] location [inaudible 00:16:53] such as development for hearing screening. Next slide.

Cartoon is funny and you may have seen it before but it always makes me chuckle. There's a lot of [inaudible 00:17:04] let me get my reading [inaudible 00:17:05] and let me go to the next slide. I don't really expect you to read this but I thought I would show you what the EHDI V2.6 message looks like. It's not [inaudible 00:17:17] here it is and once you know how to read it, it's fairly easy just to pull out where patient name is, where your next of kin information is and what the results are. Here's our 2.6 message. Next slide please. The current status is about for draft standard and trial. [Inaudible 00:17:37] can submit comments in the left side that's listed here and we are really encouraging and looking for comments. That makes a stronger implementation guide and with the [inaudible 00:17:46] already, there are 2 folks that I know that are implementing it and it's been great to get feedback. We've already noticed things that can be improved. If you are interested in implementing it or you are implementing it, please do submit comments as you do. Next slide.

In the CCHD, it was the same time we did the EHDI implementation guide, we also did the CCHD implementation guide. Next slide. We went out again for ballot in September 2012. Just as some background to start before you go out to ballot, you have to submit a project [inaudible 00:18:23] statement and that includes what your [inaudible 00:18:25]. My very first HL7 working group meeting, I submitted 2 project [inaudible 00:18:30] statement and then we wrote the implementation guides over

the summer and went out for our first set of comments in September 2012. Again, we had to do a major overhaul and we went out again in December 2013 and we finally published a year later in August of 2014 with the DSTU. Next slide please.

Again, we had a lot of feedback. It was really great. We had 35 affirmatives from our final ballot tally 3 negatives, 58 abstentions with a total of 113 in our ballot pool [inaudible 00:19:04]. We did a good job of this winning. Got a lot of great feedback that was very constructive. Next slide please. Our overhaul [inaudible 00:19:15] data types and the restructuring of this 2 segments to [inaudible 00:19:21] the ER guide. When we first went out to ballot, we didn't have our LOINC code for PCHD. PCHD was so new, we had to work to get those and so I worked very closely with [inaudible 00:19:34]. She helped get some of those LOINC codes and then we then started doing our final implementation guide that replaced all our [inaudible 00:19:42]. Next slide.

What's contained in the CCHD message. It's very similar to the PCHD newborn screening panel. There's only 1 OBR versus 3 in the EHDI one and then you can find data on the PCHD newborn screening panel. Next slide. The observations that can be included, you have your overall interpretation, whether that was a pass or a fail, the age, assessment, question we utilize that OBX [inaudible 00:20:12] LOINC code that's already out there for newborn screening. I think that's very relevant with CCHD training and on the [inaudible 00:20:19] screen, now we actually coded this value and created a LOINC code for it, asked for a LOINC code for it to indicate that it was 1, 2, 3. Instead of having a numeric value that's actually a coded value which improves that communication and then the difference between the preductal and postductal oxygen saturation can also be communicated in the message. Next slide please.

This is some of the new LOINC codes that we asked for when we were developing the implementation guide. The sensor name, the sensor type, the wrap name, wrap type, wrap size and the reason a screening is not performed. These are the same sort of details I don't think any devices are producing that right now. As CCHD programs are implemented and they're evaluated, it might be relevant information. We've seen some of that with the history of EHDI where the device systems, we needed to know what the devices were doing and some evaluations that they had made on that. With that, we requested LOINC codes and now coded of values [inaudible 00:21:20] information is available. It could be transmitted that way. Next slide. The other observations that [inaudible 00:21:28] implementation guides are the oxygen saturation levels in the blood for both preductal and postductal and the heart rate and profusion

and [inaudible 00:21:37] as well. Each one has a different value so instead of just getting a summary as path, your actually getting the specific values from the device so you can really have a full picture of the path with CCHD screening in your program. Next slide.

[Inaudible 00:21:54] quality is also one. I don't think any devices are producing it right now but it is one that's out there and available. Infant activity during the screening. Infant and factors affecting newborn screening, gestational age, birth weight. You can also include in your message the equipment used, the screener and the protocol used. From the protocol using [inaudible 00:22:15] whichever protocol you're using at or the hospital's using [inaudible 00:22:20] or different hospital's using another, that can be included in the message so you can keep track of that. Next slide please. The current status is [inaudible 00:22:29] Draft Standard for Trial Use. If you are implementing it, please submit comments on the HL7 website. Again, comments cited make it a much stronger implementation guide and we really would like to hear from those that are implementing it. I do know that some are and they're submitting comments as they go along and it again will make a much stronger and better implementation guide if we get feedback on the [inaudible 00:22:54]. Next slide.

Turning it back over to John. That's a little bit on the technical standard for patient care device. I'm going to turn it over to John to talk about the process papers.

John Eichwald: Great. Thanks Lura. We've talked about semantic standards. We've talked about technical standards or technical interoperability and semantic interoperability. The next we're going to talk about is process, process interoperability. Primarily, this work is being done in an organization known as integrating the health care enterprise or IHE. When IHE developed their standards or what they call their profile, they essentially had built two actors. One is the content creator and the other is the content consumer. This is that sort of the final leg of how we have to move information between information systems. Create it. Send it and then someone has to consume it.

The first profile that I'm going to talk about is the Integrating Healthcare Enterprise profile called Newborn Admission Notifications Information or how we affectionately call "NANI." This was developed through the Quality, Research, and Public Health or QRPH Committee in Integrating Healthcare Enterprise and it was published in August of 2012. Essentially, what this is, is so the content is created by a hospital electronic health record. That information is consumed by the public health authority.

There are 2 actors. What is NANI? It's the tool that paves the transmission, the transport and this is essentially based around the ADT messenger Admission Discharge Transfer message from the hospital to EHR and then send that securely to another information system.

Why do we do this? We want to have an accurate denominator of how many birth to current birthing facility and we want to have that information at a timely manner. Then, since the signal being sent and can be consumed by public health, it can actually be consumed by one or several public health databases using the HL standard ADT messaging from the hospital from the system. We have developed NANI based on EHDI, you relate your own screening but it could be used for other public health such as immunization programs, [inaudible 00:25:26] screening, CCHD or [inaudible 00:25:29] reporting. What starts this all in movement is when activity occurs in the hospital and this is based on the ADT message and that's actually the most common message that's in HL7.

When a record is created and that is the admission of a newborn. Well, when a newborn is discharged where the newborn has his patient information updated for example from baby boy to John Jones and any time that happens, then that event can trigger NANI to send information for consumption by public health. The kind of information that we have built into NANI is patient information, we have the next of kin, information about the nursery, the providers and the observation segment that Lura had to talk about earlier and that includes risk factors, birth weight, such things and other demographic such as gestational age.

Another profile that we have developed in IHE is our Hearing Plan of Care document and this was published in September of last year. In this case, what we have is a hospital is creating our content. That content is then consumed by the Public Health authority. That Public Health authority then becomes a content creator and then sends that information to their consumer, in this case, the provider. A provider of electronic health record and we have a number of pilots going on. We tested some this both in Oregon and in North Dakota. We currently have a pilot going on statewide in Oregon. I believe this has also been picked up by some other systems but not necessarily on a statewide basis.

The third profile that I want to talk about is one that we're developing right now and this is Quality Measure Execution-EH or QME-EH. This is in preparation, we're going to be sending it out for public comment probably this June, perhaps July and we'll make sure that we have that information provided so that you can provide input during the public comment period. Any quality measure is based upon the measure that

we develop to the National Quality Forum and that's hearing screening prior to hospital discharge. CMS actually picked this up as part of their Stage 2 EHR Incentive Payment. We retooled this an electronic measure for electronic health records and so now hospitals can actually use this as one of the 16 clinical quantity measures that they need to report to qualify for EHR incentive program. That's the E-measure that we developed this profile under.

What we've done here is something new to IHE and that is we have created a brand new actor called the report assembler and the way we're doing this new actor is it can actually be implemented in 1 of 3 ways. The report assembler could be part of what we call a smart creator, content creator and then as the hospital EHR, could take individual records and assemble these records into an aggregate report and then send that off to the public health authority such as the one that's in the CMS or if they want to send it on to state health department and the end public health authority can consume that population level of quality report from a hospital EHR.

Another way this could be done is we could do this as what we consider call smart consumer and that is we have a content creator. Basically, it's just sending individual patient level quality reports and then the public health could assemble these individual reports and again create population level reports. The third possibility for doing this is we have a third-party submission in the middle and that is neither the hospital EHR or the public health authority has actually assembled these records. The third party vendor in the middle can take the individual level reports and then assemble these into population of records and then create this information and then that could be consumed by the public health authority.

We're sending this out for public comment within the next month or 2. Then we'll do what this, what the quality [inaudible 00:30:38] execution is we will actually start testing this and we'll test this at what are called "Connectathons" and this occurs generally in Jan. We expect this to be tested by a multitude of vendors in information systems. Generally these are held in the United States, in Chicago in January and then so we'll have to have a content creator, a content consumer and then this brand new role as an actor will play the role of report assembler. One thing that's nice about this is that we've had little bit of difficulty in getting public health to come for these testing primarily because of some of the expense that goes with it. As we show here, we can actually do this in public health, can still be the beneficiary of this as report assembler could be implemented in several ways.

Once, these vendors successfully test the quality measure, then what we can do is go in and start doing showcases. Primarily, those showcase that we look at is the HIMSS11 Interoperability Showcase that generally occurs in February so we'll be looking at February 26 and this is done at HIMSS, Health Information Management Systems Society. Once again, we're looking for input from you to give us information in terms of how this profile public comment. In terms of finding information about this, I'm going to refer you to all the information that we presented today, give the EHDI website. If you don't want to remember that link, you can just go ahead and Google EHDI and look under data and statistics and we have a whole section on EHDI electronic health records that provide much of the information that we provided at today's presentation.

With that, Careema, should we [crosstalk 00:32:53]?

Careema Yusuf: Sure. Thank you both Lura and John. That was a great presentation. We have plenty of time for questions so please feel free to unmute your lines by pressing star 7 or you can type into the little chat box that is on your screen to send a question in. Anybody have any questions for them? Again, that's star 7 to unmute the line if you like to just talk on the phone. I do have a question. Somebody's asking, "Is it correct to say that NANI implementations would qualify as a CMS intiative?" John?

John Eichwald: Not by itself. That is a process to correct the denominator so it's a method for getting the denominator. The EHR incentive is actually for that quality measure. That's CMS number 31 which was based on our NQF measure. NANI by itself wouldn't but you could use NANI to create your denominator but then you would have to be able to also come up with your numerator which NANI is not currently set-up to do. That's why we have the quality measures institution profile.

Careema Yusuf: Thank you. Another question would be, "Could you please comment about the pilot projects in Oregon and North Dakota and how are they going?"

John Eichwald: The Oregon and North Dakota projects were actually done though the Public Health Data Standards Consortium. In one of the cases, what we took was the Care Plan and it was sent from EHR to public health and then from public health to the providers. Those pilots were concluded. We're currently funding a pilot project out through Public Health Informatics Institute in Oregon and we'll probably let you stay tuned for that one because we're going to be doing some presentations on how well that pilot project is going out in Oregon. I have [inaudible 00:36:12] Tina Dickerson [crosstalk 00:36:13].

Tina Dickerson: Yeah, I am willing John if you want me to comment.

John Eichwald: Yeah, go ahead but don't let too much out of the bag.

Tina Dickerson: I'll be discreet. First off, I just want to say, both to Lura and to you John, great presentation. Thank you for doing this and for laying it out so clearly and we are in the midst of phase 2 the HIU project using the Hearing Plan of Care and Lura's company, OZ Systems ... The diagram you had showing the vendor in the middle doing the assembly work, that is that model we're using with the PCD-01, getting the data directly from the EHR to them and then from them to us. It's going very well. The hardest part I have to say is giving the agreements signed between all the entities. That has taken the most time and just a heads up to anybody out there doing it, we will be publishing lessons learned from this project and so we'll spill all that out so that you can do whatever legwork you can to get those things in place out front because it does take these organizations a good 6 months to go through their process.

That's the hard part but the rest of it, everybody is really excited about getting live data out of our partner hospital, EHR and directly into this system through this route you described in your thing earlier so thank you very much.

John Eichwald: Thank you.

Careema Yusuf: I have another question. "It seems like funding to develop the IT infrastructure we need is sorely lacking in public health. Any ideas how to address this need?"

John Eichwald: Yeah. That's the important ... Much of the [inaudible 00:38:14] CMS is going out to providers. That is to providers in hospitals. There's been enough there I believe try to be addressing this. Yeah, it's definitely a vacuum in terms of funding that's being done there. That's one of the reasons I'm a little bit excited about the quality measure for execution so that we can actually get something going that will assist public health that can be actually ... The estimates come more from both on the provider side because since they're reimbursements. I don't have any magic bullet in terms of finding funding for this. I think there's been a couple of states that have been fairly creative. We're working with their state CMS program that might be ... I know there's one thing in particular that's been fairly successful with that. That might be an area to look at.

Careema Yusuf: Thank you. Along the same lines, "Are there any grants that will assist in getting this type of technical assistance that you know of?"

John Eichwald: I'll bet there are but there's nothing coming to the ... I have to think about that and maybe we can put that out if we find something when you put that out on the EHDI website. Federal grants are going to be done through grants.gov and there's a lot of money out there for that. I haven't followed that since there's may be also private organizations that fund as well.

Careema Yusuf: Thank you. Someone's asking, "Would travel to the Connectathon be an appropriate request to CDC for EHDI funding to test Hearing Plan of Care?"

John Eichwald: Ellen ... You can always submit a request. I'm not going to speak on behalf of the program. That's a little difficult for me to answer. The worst thing could happen is they say, "No." How's that?

Careema Yusuf: Do we have any other questions?

Ellen: This is Ellen. Thanks John. I enjoyed the presentation, both of you as well. It was very helpful. Because of the odd way we do things in Rhode Island, we're actually even more interested in the Hearing Plan of Care as it goes from public health to EHR at the primary care level. Have you been working on that at all or you just sort of are you not there, you're starting at the beginning?

John Eichwald: Much of that's being done as part of the organization project if I understood what you're ... I was moving the plan of care to the provider. That's what we're trying to ... The other part, that actually we want to also get is have provider reported back to the EHDI program so we can complete that feedback route and that's also sort of the next thing we want to be working on so that we can get information back to the hospitals. We want that by directionality of information so we can use this as a quality feedback. I know I'm sort of side stepping your question but there are people working on it.

Ellen: Great. I look forward to connecting with them.

John Eichwald: Yeah.

Careema Yusuf: Do we have any more questions? Star 7 to unmute the line. Okay. Drew, would you like to just have some closing remark?

Drew Richardson: Yeah, I just want to say this was a great presentation. I like the way everything was laid out. I was looking forward to seeing it all week and definitely did not disappoint. We're trying to do this similar stuff in

Florida. With both our hearing, CCHD and the entire blood card and seeing this presentations are really helping us along and making sure we're doing things standards based so that we can exchange data with additional partners down the road. Very helpful to us so thank you both and look forward to talking with most the rest you all sometime soon.

Careema Yusuf: Great. Thank you everybody.