

So we could at least start that.
I mean we're not able to finish it, but kind of it's a little bit more of what what Jared was just doing in terms of showing some of the concepts that are relevant in the feasibility view here.

McCarthy, Clara 00:39

Yeah.

I don't want to take up everyone's time because I know it's probably busy, but I can at least put in the slide a picture of the definitional challenges.
We have 4 right now of the challenges but that have right now, so we can at least people come at and over while Jared also have going and we can go from there.

Williams, Andrew E 00:46

Great.

Huehling, Jared 00:50

So much great.

Thank you.

Umm OK.

So I guess at A at a high level, I think Andrew summarized it nicely.
This information ability to track the changes in a single source over time.

Look at how the quality changes.

Yeah, the domain quantity of events changes, and that will then inform how you can update and improve your transformation.
And then there's the second context, you're actually looking at and comparing your CIMP data against the rest of the network. Uh.

McCarthy, Clara 00:55

Feeling inside out?

Yeah, from this like I'm but.

Huehling, Jared 00:57

And I think that kind, the next step in this and we start start talking about evaluating feasibility for a data challenge.

Umm you start to need to be able to create or let's say isolate numbers of patients of interest or I understand how many particular patients it within a particular category that you've defined or that can answer research question.

This is something that I learned at the workshop and this is now actually an Atlas instance running on.

Running on the MCP cloud and it's referencing the data from those sites that haven't been adjusted.

So those for sites are also available to us to process and Atlas here and then it's automatic, making USCA.

And what I've actually done in this instance is I've gone through and imported all of the phenotype library definitions.

One into the cohort definitions that can actually be generated against those data sets.

If we step into one of these really quickly, a cohort definition is and you can use this gets actually very complex, but it's more or less capturing 20 a set of medical events that are related to a patient and an some sort of temporal sequence potentially kind of all these different logic elements about what type of group of patient do you wanna you wanna investigate.

In this case, it's a type 2 diabetes patient.

Umm Atlas is a tool that allows you to kind of define that in a graphical user interface.

And the cool thing about Atlas is like on the back end of this, there's a standardized representation of those definitions and those standardized representations are available in the phenotype library, which I get to talk about a little bit a couple weeks ago.

For those of you who are on the call before the workshop, Umm, it's.

And this is a very useful tool to help you create cohort definitions or those phenotypes, patient phenotypes and actually you can import.

And what I've done is I've imported them from this location into Atlas and we can then actually generate them against the data that's been that's been ingested and we can use that as kind of a metric to see which datasets support which phenotypes effectively.

And when you're looking at it in the context of running the challenge with, say, we wanna have a challenge related to a stroke or neurological issues with USCA.

Uh.

Then you can actually define what you would expect that to look like using this tool or using an existing cohort definition.

That's been validated by a community.

So these phenotype phenotypes library.

Kind of aggregates different definitions of phenotypes or cohort definitions, and others that are effectively clinically validated, and so there there are varying stages of clinical validation I should say.

And then in order to answer the question that that Andrew is getting at, we could take a look and we and I'm new just quickly looking.

So if you look at execution with inclusion, common recovery and then kind of a time for all, but if we were to look at common, there are all not COMMON terms and common is also not there.

So I think if we were to do, we have.

Walsworth, Mark 00:58

Jared, those are mostly Pediatrics, so it might be helpful to look at something and say like hepatic failure or cardiac arrest.

Huehling, Jared 00:58

Yeah, absolutely.

So in terms of actually to generate something on the fly here, we can do that.

So this is more than more or less just saying I wanna have patients enter my cohorts that have some condition recorded of this hepatic failure and it uses this descendant concept capture which says hepatic failure plus more specific representations of that in CIMP USMM.

And what you can then do with that is you can go and say let's generate a prediction failure for Seattle.

This is actually now running the query, so it's it's taking that definition, which is represented by this this SQL query, and it's actually running that against our Seattle data set.

We, at least in this subject, that one patients conforms to the particular definition.

With these concepts in the Seattle database, just as a rough estimate, one piece that is not included that I'm not showing here is that we will merge these data sets together into a single Conco data set, and that's another process that I'm kind of in the process of doing, which then instead of having nine patients from Seattle that's this, we would actually have a broader set of patients that are kind of aggregated from their different sources, be it nationwide or other.

After sources we can ingest them.

And then we'll increase our counts in that merge data set to actually run bottles and have larger population sizes.

Uh, but we're not a cohort generation on the fly for Seattle.

We could do the same thing for the other sites, and once you have that generated then the process that I walk through at the workshop was actually taking those cohorts, building a prediction or estimation model around them.

And then training that model to kind of, predict, predicted outcomes to the interest.

So again, we're getting now very detailed into the analytics side of things, but all that to say this is kind of where we've headed as kind of a preview of of the data that has now been adjusted.

Williams, Andrew E 00:59

And there is a connection between this work which is taking what is at least a good start at a definition for something like hepatic failure.

And using it to understand the data that you're producing at your own site, apart from any use in a study.

Without going through the work of understanding cohort definitions, you've got concepts to let them you've got hundreds of concepts that all relate to one thing, and it's a little bit more of a challenge to see how many number of specific versions of something that get at consistent or something are meaningful as discrete units.

Whereas if you have a cohort definition that uses a concept set that gathers all of them together in some way, then you start to it's it's easier to interact with say, well, this data looks good.

This looks like kind of what would expect.

If you're somebody who understands what to expect at your own institution, you've got the clinical and informatics knowledge needed to say this.

This is a meaningful thing.

So in other words, this concept set or cohort definition level is often useful when you're developing an ET, because it gives you a sense of when you put the data together into more meaningful units and you graph it out, or you get a tabular view of it, and Jared hasn't had a chance yet to have those once you've defined a cohort, you can get, you can drill down into cohorts and show other attributes associated with them and so forth.

This looks like we would expect or something.

Looks like how.

They aren't leveraged so much in the Atlas tool or the data quality dashboard tool which stays at this granular single concept level.

So this is an important supplementary activity that you can choose to engage in.

It's the reason that having example case cases is often important part of doing the development work.

Now if you stay at just the individual concept level or in the aggregates over the whole CIMP data set level, it's often hard to see things that will show up immediately as soon as you start to use it in a real case use.

And so this is even though it's mostly about the analytics as we just saying it is a very useful adjunct to any ET development work.

So it's just worth noting that.

Huehling, Jared 00:59

Thank you.

Right.

And I also wanted to kind of give you some of this in context as well for those of you, I've seen demos from DRI, I think DRI is on the call, umm about the Integrated Viewer application and this would be the idea that you could actually go through and view like the images or the waveforms from a particular patient.

Umm.

And that application you'll be able to actually search for a type of patient that you're looking for.

Maybe you want to look for a diabetes patient or your somebody with heart failure, or somebody who came in.

I don't know with with some set of, uh, presenting conditions, I don't know.

And what we will do is actually use those cohort definitions to help with that search process.

So when you search, if you wanna view the the waveform signals from somebody that has, I don't know, some arrhythmia then we will, her application is going to refer to the cohort that's been generated for some general arrhythmia and it'll pull those patients that fit that particular phenotype of interest and then you can browse them as like a short list of possible patients.

So then this tool only just a standalone tool that's complemented with a bit of the other tooling pieces and applications that are gonna be happening downstream once we start to get this open up into an analytical approach.

Umm, so just a bit of a about not there to to that UMM.

Right, so I think this is not here.

I don't know, Andrew, if that we have.

Williams, Andrew E 01:01

And.

Huehling, Jared 01:02

I've still 25 minutes left, so I don't know how we wanna best go through.

Williams, Andrew E 01:04

Yeah, I like to shift a little bit.

I think this has been a fantastic overview.

Again, we're really excited as we said at the beginning, we see that two sites have submitted substantial amounts of their data, another set of sites have submitted some waveform data.

Also, we are feeling a little so we don't want to be too fast.

We are feeling some urgency around defining the.

Umm.

Data that is going to be available in time for release and use in the challenge.

A separate group on this call not as many were going to follow on the call.

A separate group is going to be reviewing the data that's been submitted and get that submitted over the next number of days.

To make that judgment and so, uh, being on the other side of, umm, where sites are at and when they expect to be at. I guess over the course of the next few days in terms of starting to upload data being make and we should take some time to clarify where we're with the SCP for uploading data which is well on its way to being finalized.

I've already been covered.

The steps have already been covered in a couple of places, but the sort of officially released and licensed SCP for it is a making progress on a best connection to what we've said here, specifically around cohort definitions.

If you start to try and use this either Atlas or the any other way of working with the cohort definitions that you can get from the phenotype library, it's a good idea.

It's good to know some of these have been defined, others are just being proposed.

And are, you know, in process umm and it's good to review what why any means by a cohort definition.

Your first intuition might be wrong.

Your first intuition might be this is how you define.

Just definitions at all.

It's more than that.

You have to have an entry date and an exit date.

You may have other inclusion criteria that are specific to a particular question that all get wrapped up into a single cohort definition, so it's just worth reviewing that to make sure you understand what that is.

If you start to use it, but.

Now that we've covered that, I think if we could shift to a discussion of where sites.

Are a good example.

You don't need to upload, but also to update where you're at.

If you get a blocker, one of you know the Google form for giving your current status in a place where you can say we're blocked by getting local permission from our institution to do X or something.

So there's a list of sites currently that have not in progress.

Which is correct if there's sort of a similar I think might understand blocked with respect to a timeline, also might not be blocked permanently, but you say I can't get it done in the next week or so because we're still waiting to hear from somebody.

So this is our current bottleneck, but I hope it will be resolved soon.

If you want to add comment on the waveform data that would be, that would be great.

To be extent that you, you know that so.

Alvarez, Maria 01:05

OK.

I'll start with a, nationwide.

Looks like Jenny and Caleb are on the phone and also OK.

Yes, please.

Yeah, we have updated the data both the hour and the waveform.

Williams, Andrew E 01:05

Is.

Alvarez, Maria 01:05

Oh, uh sorry.

I see Mike and Andrew are on from Pitt.

Kelly, Mike 01:02

I can speak in that.

So as far as we've seen from data, we still are developing the process to export it.

Umm, but the DRI data, we're.

We're supposed to submit it in the next couple of weeks.

I'm supporting 4 for review by next Tuesday so.

Yeah.

Williams, Andrew E 01:07

Thanks.

Alvarez, Maria 01:09

And I'm sorry.

Did he did you say DRI as well?

Yes, you did.

Williams, Andrew E 01:09

Yeah, yeah.

Alvarez, Maria 01:09

Sorry.

OK.

And UMM and join.

Schwartz, Heidi E 01:07

You must have known that I was just typing or DRI data is almost finalized.

There's something to look at code when in the observation table.

Atlas and Q2Q2 and Achilles have been run on what's there.

We can't have anymore note or data responses.

Waveforms are being a deidentified by my colleague and.

Some of the data, we already have it put in Atlas BCD storage and that's where we're at.

Once I've got our data after the ET's sorted for observation, then it's.

Need to be written out.

Alvarez, Maria 01:09

OK.

Umm, Mike.

So OK.

Alvarez, Maria, M.D. 01:04

Oh, everyone, so our dates.

All I said, we are currently bottle back with this data management process and what I see it's not a deep understanding but but it's we during the conversations with Atlas Ruiz and our software engineers who are responsible for that process, the things moving forward and our engineers, they talked me that it's not gonna be a big deal, it's it's OK, but it requires some finding of forms, answers for questions.

So this is our current bottleneck, but I hope it will be resolved soon.

Thank you.

Alvarez, Maria 01:07

OK.

Thanks, UMM.

I think Eddie is on the call.

Umm.

Amorin De Camposa Filho, Edilberto 01:09

Hey guys.

Alvarez, Maria 01:09

Maybe he dropped off OK.

Sorry I was.

I just had a minute and lost what the conversation is, but I heard my name there.

Williams, Andrew E 01:07

We are asking where sites are with respect to uploading their DRI waveform data.

Just Jared, in the earlier part of the know, if you were on so it was showing what was up and.

Amorin De Camposa Filho, Edilberto 01:09

Yes, I'm going to be downloading waveform data for all the cases in 20 minutes, they said.



It's the place where it comes to the waveforms, so we see if that's gonna work because there is no mechanism for large scale and waveform download, so we are just setting that up now. But then, hopefully, for the game work to move to report next week.

Williams, Andrew E 00:37
How about that EHR data then, Edda?

Alvarez, Marta 00:32
And umm.

Williams, Andrew E 00:34
What do you think?

Anoum De Crespigny Filipe, Edlbert 00:34
So I thought you mention waveforms.

So for EHR 20 minutes 40 minutes ago, we had a meeting on also the same Michael scaling the extract.

So we are setting up a table to be able to run that trigger.

We got all the other EHR data, but the information that you use as F is it taken to getting that trigger to run or something that has been a blocker for us.

But we're still like that game work, but more to report on that and it's coming weeks.

The problem is you SF is that we didn't get yet approval to put the data at Acum.

So we are waiting for M&D on some of the sign-off and forms on that.

So that's the bigger, bigger blocker we have right now.

So it's a data security assessment stuff.

Williams, Andrew E 00:29

Thanks if you could prompt somebody at your site to update any information in the umm, speed up using that Google form about those things. I think those are particularly interesting where we know there might be just hard to control the administrative processes that are gonna affect timelines for getting data released for the challenges.

It is particularly important to have some central place where we kind of know which sites are experiencing those sorts of things, so that that would be great.

But thank you for that update.

It's exciting about the waveform.

That's really cool.

Alvarez, Marta 00:04
Umm.

How about Colombia?

Nemati, Daniel C 00:00
Yeah, I can.

Alvarez, Marta 00:00
There's a few people on.

Nemati, Daniel C 00:00

I can go for Colombia.

So we're not this blocker with the AI working group here at Colombia or 80% where the meeting just keeps getting delayed, delayed, delayed.

But finally, we have a meeting with that group on Monday, so hopefully we can get the approval to upload the data and then in the meantime for EHR.

With the assumption that Monday's meeting will go well, uh, I am downloading that data and then I need to put in the request for the wave forms, but I'd imagine we'd be at the top of the queue for the waveform download.

So yeah.

Alvarez, Marta 00:02
Thank you, Dale.

I am.

Ashut Bhattacha 00:00
This is the show.

Alvarez, Marta 00:00
Yeah.

Ashut Bhattacha 00:00
Yeah, I'm on our side.

We have got a umm I'm meeting scheduled with the.

With the Microsoft Azure regarding the Acum pipeline setup that is the bottleneck for now.

But we also have got a problem.

Our CDK team is working with I think Jerald, Jerald regarding the Ansh.

We have got some problem on that one as well.

Umm.

And yeah, those are the two things that we are still working on.

And Jerald will be updating the form regarding this.

Houghaling, Jerald 00:40

And maybe I can update them.

I met with Daniel two days ago to go through getting the quality checks run and it was, it seems like it was a matter of isolating the smaller cohort of patients from your very large OMOP data sets and then executing checks on those that.

Ashut Bhattacha 00:01
Umm.

Houghaling, Jerald 00:00
But I haven't heard from him.

It hasn't been successful or not, but things are hopefully moving along there.

Ashut Bhattacha 00:00
OK.

Yeah, I will check on with him, sure.

Houghaling, Jerald 00:00
Great. Thanks.

Alvarez, Marta 00:00
Uh Emery?

Bald, Del 00:00
OK for us, we have when is 800 patients right now with both waveforms and images.

And I guess our bottleneck is where we are, where we can decide whether we should update ahsh or not.

Yeah, that's where we are right now.

Think Tony is figuring out whether Emery has any kind of restrictions handling our limited set.

So if not, then we probably will need limited set, so that's why we are right now and the original I ran.

That's one actually one.

I'm not sure if we should push it because it's great.

Umm.

And whether we need to run it with like you know very targeted dictionary.

And yeah, that's that's where we are on the data quality dashboard.

We need to add Achilles run, but I haven't run the errors related yet.

But I guess I wanna ask, do we need to set aside course set to run it or if.

Alvarez, Marta 00:00
OK.

Bald, Del 00:00
I thought we had, uh, you know, the dots, running the whole set was the good idea.

That was my understanding.

So I have access to the enterprise the whole Emery set.

Houghaling, Jerald 00:40
Yeah.

Bald, Del 00:40
So how?

Houghaling, Jerald 00:40
Yeah.

So I guess that's what we've had this discussion on one of the prior calls.

Bald, Del 00:00
OK.

Houghaling, Jerald 00:00
I think there's not a single answer that's gonna cover everybody. I think.

In the case of Dale, they were running into time constraints effectively that were causing the the the runs to be much slower when they were doing it on the full set.

So running on the subset of data was just a much quicker and more efficient way to do it.

Bald, Del 00:00
OK.

Houghaling, Jerald 00:00
OK.

Bald, Del 00:00
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Houghaling, Jerald 00:00
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Bald, Del 00:00
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Bald, Del 00:00
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Houghaling, Jerald 00:00
OK.

Bald, Del 00:00
OK.



Marta, wait here for Seattle myself institution.

Yeah, this is Mark Watsonright.

Alvarez, Marta 10:37

Oh, no.

Yes, I'm sorry.

I know you were there, but I think we know the answer already based on the date that's been submitted.

Watsonright, Mark 10:42

OK, that's fine.

Alvarez, Marta 10:44

Yes, thank you though, OK.

Watsonright, Mark 10:44

But I don't have a comment about the question actually we've been very conscious of data security for obvious reasons.

I'm wondering what the approach sites are taking or if they feel the need for tracking which patients data have been submitted.

We use the email as we modify our data submission or submit files and pieces of patient data as we acquire waveform or imaging for example to keep close track of which patients data for Corona have been left the institution and so we are setting up a system to do that.

I'm wondering if that's something that you see is something we should be discussing as a group for Corona or you're leaving it to the individual institutions or you don't see it as much of an issue until.

Williams, Andrew E 10:55

I seem like a great idea to have a system like that.

I don't think we're requiring sites to do so, but to the extent that we can collaborate and share approaches as you're suggesting, I really I think that's a wonderful question to our conversation to have and umm and then come to a conclusion about and develop some method of disseminating and sharing what sites are doing.

Um, that's what I'm understanding.

Yeah, not.

We're not requiring that certainly seems like a best practice and a great thing to have raised.

So thanks for bringing it up.

McCarthy, Cary 10:513

Actually, umm Mark, if he once you guys have that, would you be willing to share that at one of the Tuesday meetings on that's with more of the tooling and standards and everyone that might be a perfect place for us to like show what you guys are working on and see if we can implement that a little bit larger.

Watsonright, Mark 10:514

Yeah, the goal is to have it as a Tableau report that present and it's obviously it's a work in progress.

We learn as we go, but yeah, we'd be glad to. Yeah.

Alvarez, Marta 10:46

Umm, thank you.

Williams, Andrew E 10:47

So.

Alvarez, Marta 10:48

And Brian's also on the call for MIT, I don't know if there's anything that we source, I'm not sure where that stands since I know Jared is working with that a lot.

Brian Cowe 10:537

Yeah.

MIT's Schmidt, Ted

Umm, a version of the CMAP data, but not the the chosen formatted CMAP data to Jared and included some wave forms and images along with that.

So I think Jerry can speak, but I think he's planning to integrate that and into its final form.

Houghtaling, Jared 10:518

Yes.

So the what released just earlier on this call was the demo set of NIMC data that's publicly available and I have the CMAP tables from Brian for the the full set.

But I'll need to do some conversation and some looking on it, which I'm hoping to do in the next week and I can upload them to figure that into the the portal as well, so that should be one of the next sites that gets up in fall.

Williams, Andrew E 10:45

So I'm gonna reiterate that we're expecting an SOP to be blessed to kind of goes into the details of how to upload things.

Some of the outstanding issues are.

Whether raw data can be released centrally in order to do work and uh, Jared, you ran into some issues that were the CMLs are idiosyncratic in ways that require extra work.

We're in the future going to probably have a script that will pull a positive result whether the CMLs are in standard format and other kinds of validation that will probably precede the umm, upload, that'll be determined.

Uh, I would ask with a little more emphasis that I have in the past that everybody update use the Google form to update their status by the end of this week.

If they can, it's going to be really important for us.

There's a group.

As I said, it's going to be trying to understand what data are either currently available.

We're going to become available in time for a data release and to examine it in order to see which data can be used for the challenges, and we won't really be able to do that effectively unless we have an understanding of what to anticipate and we don't outside of the verbal descriptions that we get in meetings like this in the data acquisition, we don't have a way to get that view and it's quite pressing that we at least understand the current blockers.

And when you update that, please include not just the status indicator, but we're your.

Your best guess is that you will be pushing the button to submit your DMR and your waveform data.

If you have not yet done so, I update the status and include in there the data approximate data you expect to be pushing the button to submit the DMR and waveform data by the end of this week.

Please, we're going to really need that.

And so really thank you so much for all of your work.

I hope you're as excited as we are to be able to see the data using these tools and we look forward to working with you and pushing forward and all that complicated and important work you're doing.

And thanks Jared for doing all that stuff and showing us everything.

And we will see you next week like.

Houghtaling, Jared 104:20

Thanks so much.

All talk to you soon.

Telepova, Polina 104:20

Good time.

Alvarez, Marta stopped transcription