Scott Pruitt: Hello everyone. Welcome. Welcome to the data quality problem solving lab. Mary?

Mary Schwartz: So, hi I'm Mary Schwartz. I'm with Abt Associates. My pronouns are she her. And we are so happy you're here for the problem-solving lab with us. Scott?

Scott Pruitt: Hey I'm Scott Pruitt, I am with Cloudburst and my pronouns are also she her. We can go to the next slide please. Welcome to NHSDC, is this anyone's first time? This is my first time in person. Awesome. Very happy to have you here. Go to the next slide please. Alright, so today in this problem-solving lab we are going to help you understand what the core components of a data quality management plan is, we'll be calling that the DQMP. Help learn skills to identify low data quality. And identify benchmarks and strategies for improving your data quality, and then cover some common LSA flags and how you can prevent them. Next slide please.

For an agenda, we're going to briefly define data quality. Look at data quality and system performance, cover the DQMP, what it is, why it's important, talk about how data quality is measured. The LSA, strategies for improvement and hopefully at the end have some time for your questions. Next slide please.

Alright, what is data quality? So this is something we talk about pretty ambiguously but it has four primary components that we can define concretely. And data quality could be referring to any or all of these. The first component is timeliness. So, how quickly is your data entered into HMIS after it is collected from the client? The second is completeness. How many of the data elements that are required are actually entered.

Third is accuracy. To what extent is the data that's been entered into HMIS a reflection of the reality that the client is living. Fourth is consistency. So, is the way organization A interpreting something the same way that organization B is interpreting it and then collecting that information and entering it in. Our users entering data on a consistent basis and does the data make sense with each other?

So, for example if you say someone's homelessness started a week ago but then they've been experiencing homelessness for 90 days, that doesn't make sense. It's not internally consistent. You might also think about bed and system coverage and how comprehensive your HMIS coverage is. Next slide please.

Alright. So Hunt's baseline requirement for data quality is in the 2004 HMIS data and technical standards and it's really just this one sentence.

And so how each community defines, measures, quantifies, things like accuracy, completeness, and timeliness can vary. Next slide.

So one of the most important things for starting out on your data quality journey is going to be clarifying appropriate roles and responsibilities and communicating those clear expectations of what people's role are to your different stakeholders. So for example, COC leadership can help foster a culture that makes data quality a priority. They can help set accurate and realistic data quality benchmarks. They can enforce your data quality plan and consider data quality as part of the rating and ranking process for funding decisions. HMIS lead staff can make data quality of reports readily available. They can identify different data quality issues and recommend solutions to those and work with COC to implement solutions and strategies like training that help communicate and reinforce those expectations that are being set.

Participating agencies and the staff who actually are entering data into HMIS, they can help set the tone for what that agency's commitment to data quality is. They can monitor projects for data quality and resolve any data quality findings as quickly as they possibly can. And of course when we talk about data quality, all of this is in service of people who are experiencing homelessness and being served in these programs. Having high data quality is essential for gaining a clear picture of the health of a community's homeless response system and knowing where improvements are needed at both the project and system level.

Ultimately, clear roles and responsibilities will help you be more responsive. It will help you think about how staff are going to work with clients to help build trust and comfort to help have a better chance of getting honest and reliable data. It'll help define how soon end users are going to enter in data into HMIS and how that's going to be monitored. And how is the COC and HMIS leads going to help support maintaining high data quality. And we want everyone to keep in mind that roles and responsibilities are going to look different in each community depending on the staff and resources that you have available. The community might have more or less data quality related roles than what's listed here. And the tools that we have can be customized to reflect that. Next slide please.

So this is the roles and responsibilities worksheet and it is available opportunity the HUD exchange as part of the DQMP planning tool and it outlines common tasks and functions to think through. Next slide please.

Yep so this roles and responsibilities worksheet it will help shed light on your COC and HMIS governance. And the HMIS lead cannot be responsible for everything related to data quality. It really needs to be shared by other people and it helps outline who those other people, rolls,

organizations, are. So the governance structure of the COC should be reviewing this and thinking about is there a committee for data quality? Is there an HMIS committee or a data committee that can review these roles and responsibilities and help affirm those roles or affirm the value of data quality and again, it should not just be the HMIS lead involved in the process.

Right now, your COC might have one entity or perhaps even one person who is responsible for all of these things. And really writing that down and showing that can help show where things need to be spread around or perhaps there are responsibilities that really need to be happening. Functions that aren't. And it'll show where those gaps are that really aren't assigned to anybody.

And so it might seem easier from a management perspective to just give this all to one entity or again, one person. Some people might relate to that here. But those are risks, right? If that person leaves or if something happens with that entity. And so when you're working on this, consider what the best way to distribute other responsibilities are and what tools and communication methods you're going to be using to document those shifts. We can go to the next slide and I will turn it over to Mary.

Mary Schwartz: Alright. So, Scott just covered the what of data quality. I'm going to go over the why. Why do we care? Well to paraphrase Coco Chanel, you don't do data quality, you are data quality. So, first up, next slide please, we're just going to take a quick peek at Stella. Everybody know what Stella is raise your hand. If you've seen your Stella results. This is a cool sinky view of the flow through homeless system. And what interventions, what pathways are taken by clients and the system performance measures that tell us whether COCs are operating efficiently in ending homelessness. So, things like lengths of stay in programs and how long it takes to get into permanent housing and the percentage of permanent housing exits from your system. And seeing it in this way in Stella and following these pathways is meant to help you understand where there could be tweaks and where you could tweak your system to better end homelessness, have it end faster for folks, have it end for more folks in your community. Next slide please.

What this is pointing out is there are things that you can see in stella that can lead you to either system improvements or data quality improvements. So in this example and this is not a real COC set of data, this is test data so don't think we're telling on anyone. But in this example, I'm just going to have you, I'll read it to you I'm sure it's pretty hard to see but these two boxes, this one is RRH, this is PSH. And this is just highlighting that it takes 43 days to get into housing through an RRH project in this community and 298 days to get into a permanent housing project in this

community. So, 43 is better than 298.

So, looking at Stella, using Stella to analyze your data can help you make system tweaks but what if you're looking at this and saying I don't agree with that, that's bad data, that's not true. Well now we're back at the data quality monitoring plan, how to implement better data quality protocols locally so that when community members and COC leads look at Stella data, or other data that you're sharing with them through your dashboards. The data quality question is off the table. I feel like that would be the goal for you leaving this room, for me personally, that you would have in mind a day through good governance and monitoring protocols that there will be a day in your near future where your data quality isn't keeping you from assessing the real system performance of your community. Does that make sense? We want to take the data quality problem off the table. You have the power to do that with good protocols in place and that to me would be the goal. Next slide please.

Stella also has a great data quality piece to it where you can see some of the results for unknown exits and obnoxiously long lengths of stay. Ways to dig into your data set in a quality focused way so you'll want to make sure that Stella and access to Stella is part of your data quality plan. HUD has invested a lot of resources and energy into the reporting that's coming from Stella. It's getting better and better with every new and improved LSA submission. We're only going to continue to improve here. There's going to be enhancements to the system down the line but this is a really accessible data source for you right now. In Stella, there's not only system performance but data quality that you can look at now and move to that world where data quality is not a question.

After Stella which of course is that system level view, you're looking at the system level with any Stella data, you're going to want to move to the program level. And think of it as taking it in bite sized chunks. Your overall system data can improve until you have a process aligned at the program project level so that you can target specific issues that might arise in the data set on the path towards making sure the system data in stella is complete, accurate, timely, et cetera. You have to take it down to the project level and set up your data quality monitoring plan from that perspective. Next slide please.

So, what could you be doing now on a project-by-project basis? What things could you be finding in your data set currently? I have a few ideas up here. We could also open it up to group suggestions as well. I know there's a lot of expertise in this room and data quality processes and procedures that are already going on. But, right now, you could be running a report to make sure there's only one head of household, per household group. That all heads of households have a client location. That dates of

birth are accurate and complete. We know there's some level of unknown: client refused, don't know, and data not collected. But dates of birth are like one of the most critical data elements to ensuring that households are grouped correctly in terms of the ages of the folks in the household. So, dates of birth super important you can do a regular dates of birth data quality cleanup process.

So this is a big one that we tackle a lot on the AAQ desk. The discrepancies between HIC and HMIS inventory. My perfect world is a world in which there's only one source of that data and I come from a COC that was how we operated on a day-to-day basis was that HMIS was actually our HIC. And our HIC was HMIS and we used the PDDEs to answer any questions that anybody had of us including the annual inventory HIC. But at any moment, HMIS was live and active and reflective of the inventory in the community.

That is kind of the perfect world. It's not necessarily the HUD requirement but the more you can eliminate discrepancies between what you submit on an annual basic with your HIC and what at that same time the PDDEs and HMIS say about your inventory, the less discrepancy there are there between those two, the more accurate and less errors you can come across. And that can be done at any time of the year. You don't have to do that just during the LSA process. Okay yes. Yay way in the back.

Participant: I was just, one of the things with the discrepancies between the HIC and the HMIS inventory that I find very challenging and I don't know if you have any suggestions is the rapid rehousing beds.

Mary Schwartz: Yeah it's so hard isn't it? So hard. So I have, I do have suggestions and I have some clarifications and we're working on some guidance and documentation isn't quite final yet to publish on HUD exchange but I have a little sneak peak of it in this slide deck so yes. Yes we're going to talk about that. Thank you for bringing it up and I know it's the big thing weighing on everyone's mind right now. How do I reconcile those rapid rehousing beds?

Okay. So, keeping on the inventory part of HMIS, specifically because you tell HUD once a year with your HIC what your inventory is and supposedly it's what your inventory is in HMIS. So you want to go through your HMIS for project type corrections, for unused inventory, high or low utilization rates, uses of inventory by a household type that isn't what you said was the designated household type for that inventory. All of this is kind of running regular reports on your HMIS and your PDDEs and looking at what you said was the project type or inventory number or household use versus what is actually being recorded in HMIS. These things really, you can't know them unless that project is

participating HMIS. But the idea is that for all your participating HMIS, you would have HMIS data that would inform what those PDDEs should be saying. And you can update them as frequently as you want to. HUD says the minimum is once a year. But once a year probably is going to create more errors for you. So it's something to think about, I'm just needling your brains to think where can I insert an inventory review into my data quality monitoring plan.

Okay. Couple more for Mary. Oh next slide please. So, HMIS participation, perfect lead into the next bullet. So participating in HMIS does anybody know the exact definition of what it means to participate in HMIS? Raise your hand if you want to give it a shot. So participating in HMIS means that the vast majority of data about the clients served by that project are being entered in an accurate, timely, complete manner in HMIS. And that's like all the time, the bare minimum if you are, like what's in the 2004 standard says if you're only giving your data to the COC through a data dump, you're not actually using HMIS but you want to be considered participating in HMIS. At a bare minimum you would need to dump annually all the data on the people served for that whole year. So you only have to give the data once a year that's the bare minimum. But the data you give has to cover the entire year. So it makes a little bit more sense if you're going to not be using HMIS regularly but giving your data to the COC and still want to be counted as participating that you do some sort of frequent upload and it's covering everybody.

At the end of the day, if you are an agency that is entering data regularly in HMIS your project is participating in HMIS. It's on all the people and 100% as much as you can getting up to that 100% complete accurate records. Any questions there? Does that not jive with anything you know locally? Yes Mary Anne.

Mary Anne: I have a question about that. So, we enter vast data for our VA but we just started doing that maybe a year and a half, two years ago. So we don't have all 400 VASH voucher beds in HMIS but we are entering data on a regular basis and a timely manner. Would the VA then be considered a participating agency? Sorry that's very specific.

Mary Schwartz: Not all the veterans in the VASH vouchers in your community are in HMIS then no. There is a low caveat with VASH though. If you're getting the homes upload of VASH data, you only need the head of household to be counted participating. If you're doing data entry, you would want to get it on all the household members in that VASH voucher. But until you have the full record of inventory, like there are 400 vouchers and 400 bodies and beds are in HMIS. That's what participating means. Yes.

Participant: Will a project that doesn't, our HMIS vendor or system doesn't have an easy way to upload data within the HMIS. So, many of our agencies are going to start entering data in this amazing data warehouse that we recently got. Will they be considered HMIS participant and the idea is that they will be uploading data even if it's daily basis or monthly very soon because we want to use the data warehouse as a CAS, as our CAS.

Mary Schwartz: So it's being uploaded to a data warehouse but not directly into the HMIS

Participant: Correct.

Mary Schwartz: That might be something you'll want to technically submit as an AAQ that we can think about a little bit more. I don't know the answer off the top of my head on that one. I think, when I think about participating it's like the COC has, can you go back on slide for me? I just want to make a point that in HMIS you have PDDEs. And the only way to know if your PDDEs are being utilized like your projects are being utilized by your community and whether the households that are supposed to be being served are being served, the only way to know that is if you're able to query on that data on HMIS and compare it to your PDDEs. So if your data warehouse had a way that you could combine those together and do some assessment. That might be one consideration that can we really use this data if it's going to the data warehouse well then maybe you're participating.

The other thing would be in the perfect world coordinated entry. Coordinated entry is accessible and the data is in there and we can use it on a timely basis to make good assessments and referrals to folks if your data warehouse has that function too then you could probably check those things off the list and consider it participating. But I think you'd want to put a specific AAQ to get an official answer there.

Participant: Thank you.

Mary Schwartz: Yeah. It's like you can do some of this assessment yourself if you think through how can I use the data and if the agency isn't participating in HMIS then I can't really use the data.

Participant: Does HMIS use, I mean, do they pull out all the specs? They will have...

Mary Schwartz: I mean yeah if you're collecting, it's like participating means the data is in HMIS for the COC to use. To use in all its reporting, all its needs, all the things the COC needs to do with HMIS data. If you're participating that COC has access to that data to use it. That's a general. If you want to get more specific, you could submit an AAQ and we can try and answer it. We can go forward one slide now. But the idea here is that you really can't know and therefore HUD can't know and the reports that HUD writes to

congress. Like we make a lot of assumptions off of those participating agencies. So you wouldn't want to call someone participating if they're really not giving you that complete full set of data that creates accuracy in the data that you're submitting.

So you'd want to make sure you look for missing projects. Projects that in both ways, projects that have client data in them but don't say participating. That's confusing, on the PDDE side, say this project isn't participating in HMIS and yet you have client data in HMIS for that project, that's confusing. And vice versa, if you say it's a participating project but you don't have data accurate, complete, timely, in ways the COC can really rely on it and use it for some of these assessment of other data quality pieces in your system, then that's not participating and so it's confusing to not see data in the system when you said it was a participating project.

So you can check those things now. You can check for general inventory, date, and operating date alignment. Somebody asked a question recently, I think on the AAQ or in a webinar or something. Why do I have to put an inventory end date in 2.07? Inventory record in PDDE if, I keep saying PDDE, project descriptor data elements, these are those first set of seven data elements that describe the project only has really nothing to do with the universal data elements and the federal partner data elements. These are the project descriptor data elements that are really informative as to what your projects are on the ground. Somebody said why do I have to put in an end date in 2.07 if I have put an operating end date in 2.02 which is the project information, the project says that that project is no longer operating because there's an end date there. Why do I have to worry about the inventory record that's attached to that project?

Well you do. That's the rules. HUD has set up these data elements and they link off of each other and it's confusing when looking at the data to see that an inventory still exists and should still be operating and yet the project isn't. So, fixing those kinds of nuanced data weirdness, I don't know the right way to say that. There's things when you look at your records that are going to speak to whether the data is going to make sense when it gets to HUD. So those are the things you could be doing now. Next slide please.

Back to the question of inventory and the really hard inventory to make sense of. So I kind of envision this hierarchy. I've made this up. But I want this kind of sense of there's a real big set of data that when you look at it, it doesn't make any sense because it's physically impossible. And those are the things that are entry to exit date project types where we know when a body is in a bed in that project from start to finish that bed is occupied by that body.

So if you think about your HMIS data set, think about emergency shelters that are entry to exit method. Think about transitional housing programs. Think about permanent supportive housing programs, sorry not permanent supportive housing, safe haven if you have any. There's a really small number of safe haven programs still operating. But they're out there. And those are the kinds of projects that are like level one of the hierarchy, really straightforward. There's no if's and's or but's about it. You can't have the same person in one bed here and one on the same night in another bed here on the same night. Like that's not possible in that entry to exit date and the way you've project typed that project in HMIS tells data analysts and should tell you, you part of the data quality monitoring is that you're looking at this first before anybody else sees it. And you're looking for those things that just are physically impossible. They're the lowest hanging fruit, they're really easy.

Next you add in the bed nights. So this happens where a person is in an emergency shelter that we're counting in that bed entry to exit. They've occupied that bed every night. They're in there. But then, they show up at a bed night shelter for one or two nights in that date range. So it's the next level up on the hierarchy because it's like one day maybe two days, maybe but like a bunch of dates that overlap in those two types of projects really doesn't make sense. It's physically impossible. So you've got to go back to that data and say did we forget to exit that client from the shelter? The entry exit shelter? Did we accidentally mark them as living in a bed at the bed night shelter when they actually weren't that night? So it's a little up on the hierarchy because it takes a little more thought and there might be a reason. Like, opening the shelter doesn't open till this time and it closed, the other one closed at this time and that overlapped and so there's a reason there's one. But there's not really a good reason there's ten of those overlapping dates.

So, easy, easier, now we're getting a little harder. And these are our RRH projects, our PSH projects. There's voucher-based projects. There's site based, facility-based projects. There are projects that are bricks and mortar on the ground buildings that people are actually in from the housing move in date that you've recorded in HMIS all the way through either the report date, end date, or the exit date in that project. That person is in that bed. In that bed, in that building. Like that's kind of in this level three hierarchy where it's a physical structure and we know that means that client is in that bed in that structure.

And then if you look into the other projects, and you see that they have bed night dates or other shelter or transitional housing stays while their actually like housing move in date and after in a site-based facility, that doesn't make sense. It's physically impossible. So you've got to look at

your data from that hierarchical perspective. And look here it is right at the top, our hardest ones to figure out. And especially because of funding sources that have come through and said you can use this funding source to do the housing support and you can use this funding source to do the housing assistance. And those each need a project enrollment to report to that funder. They both probably have a housing move in date on them and so it looks like your system and the data is housing a single person in two different residential projects.

So this is that top of the level hierarchy. There's reasons that that would be occurring and funding source is a really good reason that would be occurring. But there's also times when that shouldn't be occurring and it's just a mistake in the data. And this is the toughest part of our job right now I think because we are dumping a whole data set to HUD once a year full of all this information including project descriptor data elements which do not specify whether this RRH project is just doing the security deposit or just doing housing supports after they've moved into their VASH voucher.

SSVF Funding allows rapid rehousing funded, SSVF person to be in that SSVF RRH project for up to six months past that housing event that is them getting their VASH voucher. So, that's acceptable because that's a fund source reason that would be happening.

But there are other reasons that doesn't make sense physically and we need to sort through those issues and it starts with the data quality monitoring plan. If you don't know why you're seeing overlaps at level four, then the job is to figure out why we have these physical impossibilities. Because RRH implies housing, RRH implies residence, their in-residence post housing date. So we need to figure out, and I think that the data standards probably need to change a little bit so that the PDDEs can be a little more descriptive there for you guys. But this is why data quality monitoring is important because in the meantime, we are going to be needing to know the difference between what is a dual enrollment that is okay and a dual enrollment that's not okay. Not okay being physically impossible and is bad data quality and doesn't represent what's actually going on on the ground. Cool? I know you guys probably have a million questions and want to argue this a little more and talk about it more. And I want to too. We are going to put this guidance out there. We're going to talk a lot about it.

So we are going to talk about this and other implications with the EHV funding coming online too there's questions there. You guys have heard me on the HMIS lead calls. We are also struggling with this just as much as you are. So we're going to keep talking about it on those calls. We're going to keep working on some sort of guidance that will help you walk through this. I hope this hierarchy kind of makes a little bit of sense and

helps you think about it in ways that maybe aligned to how HUD and other data analysts are looking at data in those same ways. I believe that's my last slide before I hand it over to Scott. But I will entertain questions but not too many. We're not going to go down a dual enrollment path right now. It's not the time.

Participant: So, quick question regarding on those one offs where we have somebody in rapid rehousing, our permanent supportive housing, and they just didn't go home that night and they stayed in a shelter for one or two, three nights. Do you just have the PSH project take them out of the bed for three days but leave them enrolled? Or do you have them exit for those three days, four days, and have?

Mary Schwartz: We have AAQs on this and I would suggest you submit an AAQ so we can give you a specific answer for that specific situation.

Participant: Okay.

Mary Schwartz: But I think as you're trying to figure this out locally, and how to assess it, let's go back to the DQMP place we want to be in this session. This session is about thinking how you can find those yourself on a regular basis.

Participant: We have them.

Mary Schwartz: Yeah on a regular basis, ask the agencies that have entered that data what the heck is going on there so that you have the answer for when somebody else sees it and asks you about it. And there is oftentimes something in the data standard, in the data standard manual something about housing move in dates, something about bed night dates, something about entry to exit that would clue you into what the actual resolution is if you don't want to have that error. It's like you get to make the choice, is this going to be an error? And do you know why it's an error and are you going to be able to talk about it and explain it? Or are you going to pursue the fix so that it just doesn't pop up as an error.

Participant: Yeah I want to pursue the fix.

Mary Schwartz: Right so ideally, ideally you wouldn't have these errors in your data at all. But, what we hear from you guys loud and clear, we know there's going to be reasons it might happen. So just know that reason. If you have a data quality monitoring plan in place, if you are looking for these things yourselves and fix the ones that are wrong and keep the ones that are not perfect but have a reason, then you can explain the errors. You can eliminate the ones that can be eliminated first before anyone else sees them.

Participant: Okay.

Mary Schwartz: And know what the answer is to the rest.

Participant: Thank you.

Mary Schwartz: But these are the things that are being looked at. So that's what the point of this is, to let you know. I really don't want to go into dual enrollments though. Now is not the time, AAQ. Okay. So, Scott your turn.

Scott Pruitt: So we've been talking around this. But you can think of the DQMP as the study guide for an open book test. So basically it's the way in which every entity that's responsible for data quality understands what they're doing and it's that reference guide for what the baseline requirements are for all HMIS participating organizations by project type for complete lists, timeliness, accuracy, consistency, and coverage. And the DQMP should also include what the goals of the COC are, related to data quality. So I think like Mary said, are you explaining why it's an error or are you chasing down and preventing the flag from ever happening. And what tools you're using to get from the baseline where you are now to your dream data quality. And so it is comprehensive and should include all of the information any entity involved would need to succeed. Next slide.

So, we're going to spend a couple minutes talking about the major components of the DQMP and some example tools that support each. So the data quality plan, enforceable agreements, monitoring and reporting, and then encouragements and enforcements. Next slide.

So, the data quality plan is your overall framework for data quality. So that includes monitoring and quality control. And what you're going to do is provide those benchmarks for completeness, accuracy, et cetera et cetera, that are informed by reality, where you're at now. What your baseline is. It should define your local reasons for why HMIS is a focus. It should also include thorough requirements for doing so, but also what your values are there. And again, the roles and responsibilities of every entity involved and the process. So it's really a key tool for commitment. What is your commitment and how are you measuring and increasing data quality? And that includes communication about what the COC's expectation is for data quality and what COC leadership is doing about that.

So again, your benchmarks can be locally defined. So, that would include both your minimum threshold for data quality. So, what is the least amount we expect you to do. What is the longest you can take to enter data? What are the most error flags that we'll accept for you as well as

your desired targets? And so it should be distinguishing your expectations by project type. So, a PSH project might be operating a little differently than an emergency shelter hopefully and you might have different expectations for those groups.

So, start defining what high data quality means to you and in doing so, you should be seeking out different perspectives. So, from your leadership to your front-line workers entering data. See what data quality means to them and start creating a common understanding to create buy in to improve data quality.

Finally, an effective data quality plan is not something sitting on a shelf, it should be used regularly. It should be actively revisited by all stakeholders. That includes leadership, that includes end users, that includes your committees, as just a reference guide for what your goals are and what you're doing about it and thinking about are our goals the strategies that we're implementing to reach those goals, is that still realistic in this context?

So, thinking back to the LSA submission with a robust data quality plan, you would be able to account for, and avoid common issues like inventory tracking that more than one head of household or no head of household overlapping enrollments. Households with no COC location, things like that. Next slide, okay.

So we've already covered the roles and responsibilities worksheet and another tool that is available is the sample data quality plan. And it is again just that. It's an example of how you should structure your data quality plan and the common elements there. Data quality plans, I think she had a question. Oh, sorry, should be informed, again, by where you're at now. What your actual measures for completeness, timeliness, accuracy. So basically how are you performing today. And so by knowing that and communicating that, you can start setting those realistic standards and goals. So if right now, if you have very poor data quality, let's say a project is taking two weeks to enter in data and that's just the reality of where you're at. Switching that to 24 hours by making a rule in a week, that's not realistic, you're setting yourself up to fail. You're not setting yourself up to succeed. Maybe getting that down to seven to ten days and then helping with support, training, physical equipment, whatever is needed to help increasing that.

HUD also has a data strategy that is linked in the tool that can give you some ideas of where you might want to start setting longer term like three-to-five-year goals. And again, so you can use this as a sample, you can use the data TA strategy as a dream but make real decisions based on what's happening. Next slide.

Alright. Enforceable agreements. These are critical to having a comprehensive DQMP and critical to your success. So, when determining what the expectations are, you want to extend those to where your priorities are. So is it going to cover everyone, certain kinds of projects, a subset of them, and you also want to think about which organizations you're going to require to sign an agreement. The enforceable agreements should very clearly spell out what the expectations of participating organizations are, how you're going to monitor for those expectations. Again, roles and responsibilities going to keep saying it. And what's going to happen if an organization fails to uphold the expectations that have been laid out. And if they do meet it, what is the incentive for doing so.

So, in an ideal world, enforceable agreements should be able to, again, define those expectations and the monitoring process, describe what data quality measures you're monitoring and how it's going to be monitored. Describe what's going to happen if the expectations are not met, incentivize meeting or even better, exceeding the standards that you've laid out and provide minimum timelines for informing the COC and HMIS lead when a project will end or begin.

So, again, written agreements are critical and it says what the responsibilities are of everyone and it sets that common understanding for binding people together to ensure there's some fidelity going on to your DQMP. So once again you're going to need to be able to leverage that governance structure of your COC to develop agreements that are thorough and situated in your local context and they will need to be updated periodically. So this isn't something that you want to set and not come back to as things change, as your community changes, as your funding changes, you want to revisit that.

And these agreements are sometimes exist but are often just seen as a formality or some kind of process requirement that we have to do and check the box and so people don't really pay attention necessarily to what they're agreeing to in the agreement. And so it's really important to make sure that the people signing it understand it up front and that you're checking in with them to make sure that they're able to meet their responsibilities and if they're not, that it's not just a punitive process that you have some kind of assistance to be able to offer to help them get there before the deadline has hit and now everything is all bad.

So, again, it's iterative and ongoing. Next slide. In the DQMP tool that I keep talking about at least, there is a sample participating organization agreement. And so it includes a lot of highlighted placeholders that you can edit yourself for what your expectations are, what your measures are, how you're going to monitor them, what steps you're going to take if

people fail to uphold to the expectations, what your incentives are if you have some, what your minimum timelines are. What happens if you violate the agreement and what's the appeals process if someone says I didn't violate the agreement. Next slide.

Alright, monitoring. So that is again, the process by which a community determines to what degree you're meeting these standards and the reporting of data quality should be monitored, it should be consistent. Ideally, it's more than once a year. Next slide.

Alright. So, there's different ways that you can monitor obviously. A lot of people have recently had to move from onsite to remote. Maybe back and forth again as the delta variant came up. Maybe you're trying to work within a combination. So there's risks and benefits of different methods and determining which one is appropriate is, again, a local decision. Maybe some parts of monitoring can be completed remotely and others you decide you really need to go on site. If annual monitoring is not realistic, think about how annual monitoring of everyone. How are you going to decide which organizations get monitored? Is it going to be the organizations who are failing to meet benchmarks and you're not going to monitor people who are meeting and exceeding that? Again, all decisions. Next slide.

So, within these same tool, there are samples of how a COC can monitor and improve data quality. And again, for both onsite and remote strategies, and it includes this template for different kinds of visits and it also includes an improvement plan. And I think with that, we're going to go back to Mary.

Mary Schwartz: I have a question real fast. How many of you, kind of back to a couple points ago that Scott was talking about, how many of you have used the agency partner agreement or end user agreements in your community to remediate any data quality issues you may have found? Anybody have a good example they want to share?

Brenda: Well mine was more along the lines, it wasn't true data quality, but it was a case of someone who had access to HMIS, sharing information from the system on a client that had passed away and he shared information that can only come from case notes to the newspaper. So, with that we shut down the access to the whole agency and had them bring their executive director, program manager, and the person that did it to meet our executive team and went over everything once again with them on the agency agreement and the user agreement and informed them that they were very lucky that we didn't prosecute them.

Mary Schwartz: Thank you Brenda. Kim do you want or back there? I want a data quality example if you have one.

Participant: So we have specific timeliness requirements for all of our projects and our policies and our agency agreement calls out compliance with all the policies. And in fact, our timeliness and data quality measures are also used in our, we call it a community scoring event where we identify who will be prioritized for funding. So it's completely full circle. It's all tied into that data quality.

Mary Schwartz: Nice. Just on the ground examples of enforceable agreements. You have those agreements, they are enforceable, put them to work for you. Next we're going to go over, so in, still talking about the tool, I'm talking about it too Scott. The DQMP tool that is available to you on the HUD exchange, how many of you have gone and downloaded that tool already? So not many of you. Really obviously it's a huge resource, right? So Appendix E is a performance monitoring and improvements strategies we're kind of setting up this, I love matrices, anyone who knows me knows I just love spreadsheets and grids. So, why this thing matters, how to address it, how often to address it. You start setting your strategies for yourself in a clear way so that you can follow your own policies. And as you see here, this one is titled Data Completeness. I know it's kind of small, hard to see but this is the data completeness one. So you're like why does it matter to have complete data? But then you do the next one for accuracy, then you do the next one for timelines. You take all of those pieces of data quality and map it out for yourself. Why it matters, how to address it, and how often you're going to review it from your perspective. Next slide please.

Data quality is a cycle. I love these circle graphs so much. I mean everything flows into everything else. I use it a lot in the contract monitoring slide deck as well but we're going to walk through these six steps and they're going to reinforce each other as you move through and then you find things out that might circle back to starting the process again. Very much like any cycle.

So, we're going to start with identifying your baseline. You wouldn't want to go and pull data out of your system to figure out what are your measures right now, how complete are things, how timely is stuff, how accurate? Consistency is hard to measure, so is accuracy. Consistency means looking at the same information across multiple entry points and making sure thing are consistent across time, accuracy is what's in the client's file, same as what's been entered in HMIS. And that's a little harder to gauge but definitely needs to be part of your monitoring plan. Again you have enforceable, participating agency agreements where you can say hey and by the way, agency participating HMIS, I'm going to

come on site and review some client files. And I'm going to look at your HMIS screens, I'm going to make sure that the data is accurate. So that's some small example of how you can install accuracy measures.

But you basically want a setup of all the things that you're going to look at. A starting point, you know, when you know, so that you know whether something is improving or not. That's what a baseline will give you. I don't know whether this agency is doing better or worse with their data quality until I know where they started. And then how often I go back and update that measure is the monitoring plan. Stop any time you guys have questions I will be happy to entertain them.

So, phase two next slide please. Phase two is getting the COC to sign off on this plan so you have governance locally. There's a board of directors or COC board that needs to approve. You might have an HMIS committee that can help inform the plan and then walk the plan back through the COC but you definitely want to make sure you have buy in. How this plays out, one of the ways to enforce data quality is to tie funding to good data quality. And so, you can say that all you want in your plan, but when the COC then goes to make funding decisions with the HUD funding and they didn't buy into hey that agency really shouldn't be funded again until they clean up their act, then your plan has no backbone. So making sure that the people who have the money are on board with what you're trying to put forward in terms of data quality and consequences for bad data quality. Next slide please.

Okay we're going to develop the plan at this point. So you've got your baseline data, I didn't say it but the other great thing about figuring out your baseline data is that you actually have the reports you need to do this job. If you want to measure timeliness, do you actually have a local HMIS report that tells you a comparison between date entered or date created or project start date and user input date? Like whatever those metadata elements are you need to be able to pull that data out, not only to establish a baseline but to keep monitoring it. So you wouldn't want to move forward with your data quality plan in phase three until you've set the baseline. And by doing that, assured yourself that you can actually do this reporting. The COC buys off on it and now you're deep in the middle of the grid. Like why are we doing this? What are we going to do? How often are we going to do it? What reports are we going to run? How can you monitor yourself? A great monitoring plan includes ways that they can look at their own information. Gosh this sounds familiar like, go and look at your own dual enrollments before HUD sees them in your LSA upload. Give your agencies the chance to go and look at their own data quality before you come at them with your monitoring plan.

Okay, so then you're writing down in this plan all the ways that you will

enforce it. And you need to think through what the ultimate consequence will be. How do you inform someone that they are out of compliance with your plan? What's the consequence? How long will they get to remedy the situation? You're very much going to put on your lawyerly caps and think about what's actually doable from my standpoint. What reports can I actually run and what authority do I have? You control access to HMIS as the HMIS lead. So certainly, if somebody isn't HMIS, and have funding that tells them they have to use HMIS, their funding is potentially in jeopardy. You control that, so thinking through how you can enforce data quality through these agreements and being really clear about it.

You wouldn't want somebody to be caught off guard with like worst case, I mean there's a million worst case scenarios here but say I'm an agency, I have an APR due, I waited till the 89th day to submit my APR, nobody does that. And I need to log into HMIS and run my APR but now I can't get in. And I call the HMIS help desk and they say well your data quality was really sucky last month so we cut you off. That's not a good situation. They need to have known the process, what happened, how they can rectify it, what their remedies are, giving them time to fix it. Never putting it to them to a place where they're in jeopardy of not meeting their reporting requirements et cetera for their fund sources. Build up to the extreme remedies of turning off HMIS access with clear guidance and expectations leading up to that event if that event even can occur. Yeah, couple hands.

Participant: So it's perfectly fine if you give them all the tools in the world to correct their data and they do not, to cut off their HMIS access?

Mary Schwartz: Do you have it written in agreement that you will do that?

Participant: I've got to check that.

Mary Schwartz: If you, you guys if you write it, you can do it, but you need to be clear about it and communicate it. HUD puts this work in your hands. That's why we're doing this session right now. You can put these things down in agreements and then enforce them. The more you write down, the more you have to administer and enforce, the more you have to do. And you need to do it. This is the job.