**Using Data to Drive Improvement: Part Two**
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Jacqueline Higgins: Good afternoon. My name is Jacqueline Higgins and on behalf of the CJR model team at CMS welcome and thank you for joining the second session of the CJR Data Driven Improvement webinar series. Today's session will feature a presentation by a representative from CJR participant hospitals in the Adventist Health System who have been successful using both claims data and internal data to drive performance improvement in their CJR implementation. We will also facilitate additional discussion with you regarding your data driven improvement strategies, successes and challenges.

Now I would like to turn the rest of this presentation over to Ms. Kathy Woods who will walk you through the agenda and some facilitation. Kathy.

Kathy Woods: Thank you Jacky. I'm joined today by my colleague Alicia Goroski as well to facilitate our– today's session. Let's talk briefly about our agenda for today, we'll review the meeting logistics. We'd like to spend a few minutes also sharing with you some of the results from our recent CJR Needs Assessment survey that pertain to this discussion. We'll have our Adventist Health presentation and again then certainly open the floor for questions, answers, and further discussions. Do note that with this session our goal is to finish within 50 minutes, so that you all will have time to complete our post event survey and give you a bit of time between meetings and what we expect is a very busy schedule for all of you and again we're glad that you could join us today.

For meeting logistics all the telephone lines are muted right now. We encourage all of you to use the chat pod to offer your questions and comments. We look forward to hearing more from you through chat, polls, and our post event survey. As a quick reminder, the platform that we use for these webinars is Adobe Connect. You should be seeing the slides in the upper left pod or square on your screen. To the right of that you will see dial-in direct information by telephone, immediately beneath that our chat pod. Then likewise the lower left corner offers closed captioning information for those of you who might need it. Mid center at the bottom are the event resources where you are able to download not only the slides that are in front of you but also text alternative. Some of the dashboard screenshots from our presenter today that will give you a little bit better opportunity to view the details of the dashboard that you will be seeing in a bit.

We would like to today have you check your recall of using chat. We'd like to have you share with us your organization, where you are located. We know we have folks from all across the country, so give us a sense of where you are calling from today, the organization you are representing, and perhaps also a little bit about a CJR improvement activity currently in progress at your organization. We have a few folks typing, welcome we've got folks from Kansas, Ohio joining us. Folks from Florida, Connecticut, Southern California. We've gone coast to coast here, welcome everyone.

All right while you are typing and letting us know who else is with us let's go ahead and we'd like to – before we go to our presenters here we'd like to take a quick little poll and it's really helpful for us to understand how you all are using the information that's shared in our session. We'd like to get a sense of whether you have had the opportunity to work with others in your organization to take action based on the information that we shared in other data driven improvement webinars. The most recent one we had last month was folks from St. Francis Medical Center in Monroe, Louisiana who shared a number of dashboards that they're using both with claims and internal data and it really helped to support changes both related to their clinical practice guidelines along with some of their cost improvements.

We're curious to see what you folks might be doing. Again the folks at St. Francis, actually as a result of using their dashboard, one outcome of note that they were able to certainly have an impact on transitioning more of their patients to the home setting versus previous experiences where more folks went to skilled nursing facilities, and so really, were happy with the use of their dashboards. Let's see here, let's give maybe just one more moment here to see the results of our poll. It looks like a good number of you are able to apply some of your learnings here and use them in your organization. We're really happy to hear that. Let's close, go ahead and close that poll. All right, so with that again thank you all for sharing your information. I would like to now hand it over to my colleague Alicia Goroski who is going to share with you some of the information about our recent Needs Assessment survey results. Alicia?

Alicia Goroski: Thank you Kathy. Before I jump into this, just one note, I did notice a handful of you indicated you were unable to attend session 1 of the Data Driven Improvement series. All of those events including the recording are available on the CJR Connect website. If you do not have access you can reach out to us at LS-CJR@lewin.com and we can point you in the direction of those. All right, so yes, first I wanted to just thank everyone, we fielded a CJR model Needs Assessment Survey last month and just wanted to thank all of you who responded to that Needs Assessment. We do these periodically and it's a great tool it really helps us monitor the strategies that participants -- kind of across the model participants-- are focusing on, having challenges, and that type of thing. What we wanted to do, these are just some very early preliminary results from this around – this is just a selection of a few of the questions, but they were all much related to using data to drive performance. So, I have three slides.

This first one, and I'm on slide number 9, we ask you to let us know where your organization was along kind of you'll see the spectrum of response options. The topic for this one was using internal data and dashboards to drive implementation strategies. The response options in all three slides, we have these response options in the same order. Starting on the left that is we have 103 respondents, just almost 7% said that it's not a current priority. Moving to the right just about 5% said it's a priority but you haven't yet pursued it. 25% have implemented this strategy of using internal data and dashboards, but you are experiencing some challenges, and then almost 45% have implemented this strategy and it's going pretty well. Then just about 18% of you had a process in place prior to the CJR model. We have over the past couple of years seen kind of progression where we're seeing more responses kind of move towards the right of this graph.

This next graph on slide 10 is − we asked you to again kind of using those same categories tell us about your implementation and progress on using CMS claims data, monitoring reports and/or target price reports to drive implementation strategies. Again you will see pretty similar results, however, I think overall more respondents that are actually − that are implementing this strategy and it's going well or you are experiencing some challenges.

Then the final implementation strategy that we wanted to share today, just those we're kind of framing this topic, was asking about whether you are leveraging formal and/or informal quality improvement tools to drive improvement. This one you'll see it's a little more split among those last three implementation progress categories of you are implementing it but having some challenges, implementing it and it's going well, or we have more respondents, about 28%, had a process in place prior to CJR.

Again, we are able to use this data and, like I said, we can use this to focus in on topics and strategies for our learning system events and activities. Now we're at a point in our webinar where I am going to introduce our presenter Jennifer Waterbury. Jennifer is responsible for analyzing Adventist Health's CJR performance including but not limited to tying in data with operations, recommending performance improvement activities, sharing and collaborating, and educating new team members on bundle payments. Earlier in her career she served as a process engineer at Florida Hospital Orlando and helped get CJR up and running with improvements. She was also an analyst for the outcome analytics team at Adventist Health System. Prior to joining the Adventist Health System Jennifer served as a manager of Operational Planning and Analysis for an outsourcing company and received her Six Sigma Black Belt while in this role. Jennifer it's now my pleasure to turn the call over to you.

Jennifer Waterbury: Thank you. I'm going to go ahead and start this off. I'll be going through how at Adventist Health System we use data to drive improvement within CJR. Just a little bit about who we are. We are a − our corporation, the headquarters is located in Maitland, Florida. We were established in 1973. We have 46 hospitals and we just acquired one more. This slide is now a few days old. We actually have 47 hospitals across nine states. We employ more than 80,000 employees and physicians. We see over 5 million patients annually and we do have post-acute care services. You can see here that we have 15 skilled nursing facilities and 22 home health. This way we can transfer patients and not discharge them so that we say with the continuum.

CJR and AHS, with all those hospitals the original rule had 11 of our CCNs within four states. With the opt-out, we actually lost one hospital, but with a purchase we gained another one, so now we have 11 CCNs again, but within three states. We had no prior orthopedic bundled payment experience in any of our hospitals, although some of them did have joint programs, so that was beneficial in health. Then AHS overall, we had internal dashboard limitations, so when the rule came out we were frantic because we could not see anything past 30-day readmission. We had nothing on what our complications look like other than what we could see on hospital compare, which is produced annually. We were definitely not tracking any of our patient's post-acute care. We didn't know if they were going to SNF and home health

and for how long. We definitely had some work to do. We had to work on a near real-time dashboard to help guide us into making improvements so that we could be successful in CJR.

Some of the key metrics for the dashboard that we worked on, a lot of them came from our EMR. We do rely heavily on care navigators at our hospitals as well. The metrics are the volumes by DRG, our acute length of stay, discharge disposition, ED or observation visits to AHS hospitals. Again, this is our EMR, so we can only see within our own system readmissions to AHS within 7, 30, 60 or 90 days in complication. We're working on trying to get the surgeons in because within our EMR they are actually attributed to an ICD-10 and not the DRG code, which is what we're using to pull out the 469s and 470s. Then for historical, BPCI Classic is going away as of October 1st, we did have some of our hospitals that had BPCI physicians. We weren't going to try and monitor their cases, we needed to know what was going on within ours, so we were asking our navigators to tell us which of those cases were BPCI or not so that we can take them out of our data.

Now we also asked for them to fill out a spreadsheet that has the SNF or inpatient rehab length of stay as well as home health and outpatient rehab because we wanted to try and get an idea of how much these patients were costing us before we got the claims data because we all know there is a lag with that, so we were driving blind. We also are able to track in there if we collected the pre and post op PROs, and this way we can make sure that we were getting the right percentage collected so that we knew we would hit the metric for CMS. Then the electronic financial system − that is where we get our acute spend data. We're able to figure out how much that inpatient stay is worth. Then Press Ganey is where we get HCAHPS.

This is a view of the executive summary. It does show the discharge disposition in a donut, so you can see we've got home health, SNF, home with outpatient therapy and then we're able to identify where they're going in what location, so what SNF or home health. Just so you guys know that the slides that I will be presenting today, it's all scrambled data and none of it's real. It's all fictitious. We are able to see our active cases, our closed cases, the surgeons, the breakout says the percentage of 469 versus 470, our acute length of stay. Then on the right-hand side you're able to see the number of ED post visits, the number of observation post visits, and then how many readmissions broken down by the days, so less than or equal to 7, 8 to 30, 31 to 60, 61 to 90. Then also if the net care coordinators told us that they had a readmission outside of AHS, we would then pull that in as well. Then we also have the average SNF length of stay, inpatient rehab, home health, and outpatient visits. That is dependent upon the care coordinators where the ED observation and readmissions is coming straight out of our EMR, except for the ones that are non-AHS.

The ED visits, observation, and readmissions are all drillable and provide patient details underneath them, so you can click on 237 and see all 237 ED patients and why they were in the ED. We have the original financial numbers and then we have other financial numbers that are unique patient identifiers. We have the return visit as well and then we are able to see their chief complaints and their ICD-10 when they left the hospital because sometimes they don't match up.

Complications is the next one I'm going to go through. As you can see, we do have a tab also for beneficiary letter our HCAHPS and PROs**.** We do track compliance in here for beneficiary letter, but the focus today was on complications and readmissions. With complications we were able to pull using the NQF 1550. We've mirrored their model pretty much as to how to identify AMI, Sepsis, pneumonia, mechanical, joint infection. All of the above so that we have the same timeframe, so if it's either in the acute visit during that or within that timeframe post. Again this is all from our EMR, so if they go to another hospital outside of our system, we will not be able to capture that complication, but our hospitals are able to obtain the patient number, their unique identifier when they are admitted, discharged and what the complication was, and we found this to be very beneficial for them.

That takes me to hospital A our first example. We do have a hospital that actually uses dashboard to work on their complication rates. Since the dashboard provides up to date knowledge, instead of the lag of two years, they were able to use this for a performance improvement project. They actually identified an opportunity with pneumonia complications with those patients who had a higher BMI and it was 40 or above. They were then going to work with their physicians and strengthened the patient optimization to get those patients ready for a knee replacement so that they're not coming back and getting a complication like pneumonia. With that being said, the raw complication within AHS facility only, so within that campus only, their performance year two complication rate was at 3.2% and that was for the full year and performance year three to date, which is approximately six to eight months since the complications vary from 7 days to 90, they are at 1.5%. They're doing very well. They received reconciliation payment for performance year one and two and their quality category was good for both of them, but they are aiming towards excellent because one of the areas that they were falling in or the area that they were falling in was in complication.

Now I have another example for you. Hospital B actually has used dashboard for readmission, so since it does provide up to date information about ED visits, observation, and readmissions, they were able to analyze the reason for returns and they found that there was a consistency and that was due to constipation. They actually have been educating their patients more in their pre-op class and before they go home about what they could be taking for over the counter medications to help prevent them from coming back for constipation.

Their raw readmission, this particular hospital, to AHS facilities again, 2017 discharges was at 18%, so that's all of 2017. For April through July 2018, discharges were at less than 10% already. They're doing fantastic and they just started doing this about earlier the first quarter, which is why I have April through July discharges. They also have received a reconciliation payment for performance year one and two and their quality score is also good. Here is my contact information. If you guys would like to reach out to me with any questions or if you want to learn a little bit more about it, you can definitely reach out to me.

Alicia Goroski: All right. Well this is Alicia and I'm going to jump back in here now. Jennifer, thank you so much for kind of sharing your experience. What we're going to do now is, again, I want to just kind of reiterate to the audience out there, if you have any specific questions related to Jennifer's presentation, you can type those right now into the chat. Likewise, we would love to hear just if you have any

reactions, you know, anything, if it triggered any ideas or if you're doing something similar or different, we'd love to hear from you in chat. We do have another CJR hospital participants on the phone and she's going to just kind of react to Jennifer's presentation. What I'd like to do now is introduce, we have Dawn Rakiey, who is the CJR coordinator at University Medical Center in Texas on the line with us. Dawn tell us kind of what are your thoughts and reactions to, kind of the two improvement stories that Jennifer shared today.

Dawn Rakiey: Thanks Alicia. Hi everybody. We were kind of in the same situation that Jennifer was in with her hospitals is before CJR we don't even, I don't even think we knew what a dashboard was except for in a car. We had nothing, we weren't regulating anything, and we weren't keeping stats on anything, so when CJR happened, we kind of followed the same suit and made some dashboards. You know, I love data, so luckily they let me do whatever I want when it comes to dashboards. We were tracking readmissions as well because that was one of the issues. We made a few dashboards, a CJR dashboard for like our steering – for our CJR steering committee that had DRGs, length of stay, percentage discharge home versus our target, and then hospital costs per CJR episode. We also did a physician dashboard, because it was what we were noticing, pre-CJR, is that if you -- at least at this hospital -- if you had a total joint replacement, it was like bam automatic you go to inpatient rehab or a skilled nursing facility. We quickly changed that and did a lot of physician education and made them a physician dashboard that we give to them monthly. It has their DRG, the length of stay here at the hospital, disposition after discharge from the hospital, and then we break it down by total episode cost. I'll break it down like this patient went to IPR, this is how much the cost was, this patient went to SNF, home health, etc. Then we also include readmissions to that and saw a trend that if we discharge somebody to a SNF or IPR, they had a higher readmission risk. We did a lot of education on that.

We also did dashboards for our skilled nursing facilities and our home health agencies so that they, you know, SNF, their bread and butter is to keep people forever. We made them their own dashboard so that we kind of held them accountable as well, as far as their length of stay, episode cost, and readmission. With those in place, we actually had a great performance year one and then even better performance year two. We're actually in the excellent category this past performance year and actually improved four points like in our total overall score. We also made it mandatory that they attend the pre-op class and I teach that class and in order to help with readmissions with electives, in class, I discuss with patients that, our physicians, our ortho physicians want our patients to see them instead of going to the ER, or a County Hospital. The ER is going to be crazy full with sick people. You wait a long time and you're going to see whatever residents on call and our physicians want their eyes on their elective patient.

We tell them if it's non-emergent, like no chest pain, no shortness of breath, they have a direct line to our physicians and if our physicians aren't in surgery that day, they'll squeeze them into clinic that same day or the next day if they're in surgery. That way we reduce our trips to the ER and we can help bypass a possible admission if we have them see their physician and they get put on medication if needed. Yeah, there's been a few things that we've done, and data has been a huge part of that actually having

numbers and having data to show our hospital administration, our physicians that, you know, this is what we're dealing with and how to improve it.

Alicia Goroski: All right, well thank you so much, Dawn, for kind of providing that reaction and just sharing, you know, kind of some of the similar processes that you and your organization went through. We're going to, we have just a few minutes to again pose questions to Jennifer and if you have any questions from what Dawn just shared, again, feel free to type those. Jennifer, thank you. I see that you've already headed over into the chat and you answered Rebecca's question where she asked what database you were using, and you responded that that was ClickView. I, Jennifer, had a question that I wanted to kind of pose to you. One, I love the two improvement activities stories that you shared. What I was wondering is, do you have a process in place for sharing those improvement activities and successes across the 11 hospitals, CJR model hospitals, in your system?

Jennifer Waterbury: Yes. Actually we do have, it used to be monthly CJR meetings. Right now with BPCI Advanced ramping up we've kind of turned it down to every other month. For CJR, we call them All Calls, so this would have everybody from CFOs on the call, you can call into the care coordinators. It's not just the higher level, and we do share sometimes some of the improvement activities or other information that we need to get out to everybody.

Alicia Goroski: All right, great. Okay. I'm keeping my eyes about for other questions that may come in on chat, but I think we have a few other questions if you're okay with us posing those. One, I think one of the most innovative strategies that you talked about to me was how your dashboard includes data from so many sources. You're using your EMR data. The one that is most intriguing to me is the care navigator that they have to enter the data, and then you have data that you're pulling from your HCAHPS vendor and finance. On that care navigator data, did you experience any resistance or challenges, maybe related to multiple care navigators entering the data consistently when you started that process? I'm just really curious about how that's going.

Jennifer: All of the above, just the 11 CCNs, we actually have one CCN that is in about seven hospitals, but only four of them were doing joints at that time, and then it gets reduced down to three and what have you, so we ended up with more than 11 hospitals. Some hospitals had dedicated resources and others did not. When we're collecting that manual data, it's not going to be that accurate so for SNF length of stay, if we're not collecting it on every patient every time. With that being said, it was definitely a challenge, and we still don't have all of our hospitals collecting the manual data, but they are using it for other− the EMR data. Then with regards to them entering the data, so we actually have a spreadsheet and they upload it into their own SFTP site, so Secure File Transfer site, which is then downloaded or uploaded into the dashboard. Each of our hospitals actually have their own folder out there that they only have access to, so they couldn't go into somebody else's folder. We are able to identify whose data is coming from there and put it into the system.

Alicia Goroski: All right, great. Okay. Then I also see, and so Dawn, thank you. Angela over in chat had asked a question of Dawn asking whether they cancel surgery until patients are able to come into that

pre-op class, and again Dawn thanks for answering that. Dawn replied that yes, they do in fact postpone surgery until they're able to make it in for that pre-op class which is offered weekly it sounds like Dawn, right?

Dawn Rakiey: Yeah, that's true.

Alicia Goroski: Yeah. Okay. All right. Great Angela, I see your question now for Jennifer. Jennifer, Angela is asking what type of data does the care navigator provide that's not in the EMR? We can go back to that slide.

Jennifer Waterbury: Right, if we can go back to that slide.

Alicia Goroski: Yup. There we go.

Jennifer Waterbury: Yup. We were originally getting – and we still are until we switch over to the ICD 10s that are classified under the DRG 469 and 470 – but originally and still currently we're getting their surgeon name whether or not if it was a BPCI case the SNF, so mainly the post-acute care of those. The SNF length of stay, the inpatient rehab, home health, and outpatient rehab visits so the number of visits for those and then whether or not they collected the pre and postop PROs because we do not have this information in our electronic medical record.

Alicia Goroski: Right, great. Okay. I guess this one is changing topic areas just a little bit, but I'll leave this key metric slide up. We're also curious if you have a sense or if you can share how close the data in your dashboard matches when you get the claims data. I think we heard you say that your system, your EMR doesn't account for readmissions outside of your health system. I mean there may be some things, have you guys taken a look at kind of doing almost a post reconciliation when the claims data come in?

Jennifer Waterbury: Yes, I have definitely validated against that, especially when we first started going live with it because we needed our hospitals to press what we built. I have validated the complications and readmissions. Very few go outside of our system actually because we have such a strong presence in Orlando, but we also don't risk adjust. Our readmission percentage is a raw readmission percentage. It's not risk adjusted for those that are more complicated. With that being said, we actually have probably -- I haven't checked in a while -- but we might be over giving because of the raw number, the readmission percentage, and then for complications we're pretty much spot on except for the few that get – go outside of the system.

Alicia Goroski: Okay. I'm going to just pause, just one more kind of call. I think we've addressed, we've posed all of the questions that have come in from chat, kind of one last call if there are other questions, or I'll also kind of to Jennifer and Dawn if either of you have questions for each other at this point.

Jennifer Waterbury: I'm good.

Alicia Goroski: Okay.

Dawn Rakiey: I'm good as well. Thank you.

Alicia Goroski: All right. It looks like someone was typing. I'll give it just one more, one more second here, okay. I'm going to move us back to where we were, okay. I think I'm going to go ahead and move us along to the summary then. I've really enjoyed today's session and I'm just going to kind of do a quick summary of the highlights that really stood out to me. Again, Jennifer, I just want to thank you so much and I think what I heard the process that your hospital went through when you began your participation in the CJR Model sounds not dissimilar to what we've heard from many, and that you really had to kind of start from scratch. I really enjoyed hearing about the kind of the process you went through to identify those measures. In particular, how you have measured your dashboard combines measures from multiple data sources. As I had posed in my question, I think kind of including data that is directly entered by your care navigators, really fascinating.

Then again, I really liked kind of your story, your hospital AMB program or using data to drive improvement, those examples. That's really what this webinar series was getting at was we wanted to share and hear examples of how CJR model participant hospitals are just using that data to identify, almost a root cause analysis, identify a problem, come up with a solution and show improvement. Again, so those two examples that you shared using your data from your dashboard to kind of replicate that NQF 1550, the complication rate, and identifying that opportunity, you were seeing an increase in pneumonia complications that was correlated with patients with a higher BMI.

I know I think that topic of kind of using data, on prior webinars we've actually had a few people ask if anyone was doing that, and so it was really great I think to hear you share your experience around that. Then you're kind of hospital B scenario of identifying kind of an issue with readmissions related to constipation issues and putting processes into place to kind of reduce those. Again, I think you shared with us a couple of great examples of data driven improvements. With that I am going to kind of close up my summary and turn it back to Kathy now who is going to take us through the remaining closing items of today's webinar.

Kathy Woods: Sure. Thanks very much Alicia. We had some very, very interesting discussion today. From that we're hoping it has stimulated some thoughts for you, for your plans so leave in action, and if you could type into chat for us please, what new information you've identified today that you'll continue to think about and work on throughout the next month? Maybe you'll do some of your own further root cause analysis with the data that you have. Maureen is saying that she is going to do some more work developing dashboards that capture more information. Maybe it's developing them, maybe it's refining them, and maybe you'll take information and share it with your physicians or some of the staff working with these patients. Other folks are typing here. Let's see what others were thinking about.

I know we are seeing so many exciting twists and turns on dashboards and do remember that if you wanted to have a much closer view of the dashboard that Jennifer shared that actual screenshot is

available for you in the event resources to drill down. Sarah is also doing some work on combining her dashboards as well in prep for joint commission surveys, so good luck with moving forward there. With that, we'd like to do a couple of quick reminders here and announcements. We can of course continue the discussion on CJR Connect, you may get off the line today and realize, oh, I really wanted to ask you a question that I neglected to raise, so you can do that with your peers on our CJR Connect dashboard. You can go to the Group tab, select CJR all, and post your question to the group, or go to the Chatter tab and type the message into the open text box using the new post to all feature.

I'd like to remind you too, for those of you who may be joining our Affinity Group Sessions, we have two additional sessions that are scheduled here between mid-August and mid-September. Next week's session, we're going to be exploring the use of Telehealth waiver, and the one later on in September we'll be looking at some of the pricing strategies and cost efficiency strategies with some of your equipment providers. So hope you could join us for those sessions as well. If you have any questions about those events, perhaps if you're not registered for those just sent us an e-mail to the e-mail address here on your screen.

Final reminders here, questions to CJRSupport@cms.hhs.gov. If you don't have a CJR Connect account, you got the information right there. With that, we're trying to give you again a few minutes back today, and so we ask you to take just a few minutes to give us a sense of your reaction to the session today. We'd love to get your feedback on the post event survey, and I believe we're loading that survey here momentarily. Again, we thank you all for joining and please get us a sense of your feedback here. If you don't have the time to do this now, you will receive an e-mail in about an hour where again, we really appreciate your feedback. It helps to inform how we approach our future learning events. With that, again, Jennifer, thank you so much for sharing your information. Likewise, Dawn for sharing your stories. We appreciate everyone's attendance today and hope you have a great afternoon.

Jennifer Waterbury: Thank you for having me.