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Hospital Inpatient Quality Reporting (IQR) and Hospital Value-Based Purchasing (VBP) Programs Claims-Based Measures Hospital-Specific Report (HSR) Overview and Updates

Presentation Transcript

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Bethany Wheeler-Bunch:

Hello and welcome to the Hospital Inpatient Quality Reporting and the Hospital Value-Based Purchasing Programs: Claims-Based Measures, Hospital-Specific Report Overview and Updates webinar. My name is Bethany Wheeler-Bunch, and I am the Hospital Value-Based Purchasing Program Support Contract Lead from the Hospital Inpatient Value, Incentives and Quality Reporting Outreach and Education Support Contractor. I will be hosting today's event. Before we begin, I'd like to make our first few regular announcements. This program is being recorded. A transcript of the presentation, and the questions and answers, will be posted to the inpatient website, www.qualityreportingcenter.com, in the future. If you registered for this event, a reminder email, and the slides, were sent out to your email about two hours ago. If you did not receive that email, you can download the slides at the inpatient website, www.qualityreportingcenter.com Also, look in your chat window; I believe the link to the slides was sent out about a couple of minutes ago. If you have a question as we move through the webinar, please type your question into the chat window with the slide number associated to your question at the beginning. As time allows, we will have a short questionand-answer session at the conclusion of the webinar. Applicable questions that are not answered during our question-and-answer session will be posted to the qualityreportingcenter.com website in the upcoming weeks. I would like to welcome Miss Tamara Mohammed and Miss Angie Sour as today's presenters. Tamara is the Measure Implementation and Stakeholder Communication Lead at Yale New Haven Health Center for Outcomes Research and Evaluation. Angle is a Hospital Quality Reporting Project Lead at General Dynamics Information Technology, Healthcare Quality Analytics and Reporting Contract. Thank you to Tamara and Angie for presenting today.

This presentation will provide an overview of the Claims-Based Measures Hospital-Specific Reports for the Hospital IQR Program and Hospital Value-Based Purchasing Program. This overview consists of the following: a summary of national rates and performance categories used in the Hospital IQR Program; details on receiving the HSRs; a review of

claims-based measure calculations and reading of the HSRs; as well as, a description of the process of submitting a Review and Corrections request.

At the conclusion of the presentation, participants will be able to perform the following tasks: recall how performance categories are assigned using national rates; recognize how to access HSRs; interpret your HSRs and results; identify the process for submitting a Review and Corrections request.

In today's webinar, we will be discussing the hospital-specific reports for the Hospital IQR Program and Hospital VBP Program that your hospital should have received last week. A little later on in the presentation, Angie will be presenting on the specifics on receiving those files; but first, I wanted to walk through which measures were included in the HSRs and their measurement periods. The first set of HSRs that were sent to your hospitals earlier last week was for the FY 2018 Hospital IQR Program, FY or fiscal year, 2018, references the payment year in which CMS evaluates whether a hospital has met the requirements of the Hospital IQR Program. You may also hear this referenced to as reporting year 2017, because 2017 is the year the data will be first displayed on Hospital Compare. But as you see on the slide, the measurement periods are generally from 2013 through 2016, with one exception being the Hospital-Wide Readmission measure. This slide displays the Hospital IQR Program measures and measurement periods, including the mortality measures, readmission measures, complication measure, payment measures, and EDAC measures, which is the Excess Days in Acute Care. Please also see the note that there was not a patient safety indicator HSR included in the Hospital IQR Program HSRs. HSRs containing the PSI data will be provided in July for an anticipated refresh on Hospital Compare in October 2017. For more information on the new PSI 90 composite software and the delay in public reporting, please reference the Hospital IQR Program webinar presented on March 29. The recorded webinar and slides are available on the qualityreportingcenter.com website, in the Hospital IQR Program Archived Events section. I will post the link to that webinar in the chat window in just a few minutes.

This slide contains the measures and measurement periods for the FY 2018 Hospital VBP Program HSRs that were provided late last week. The HSRs included the 30-day mortality measures for AMI, heart failure, and pneumonia, and the PSI 90 composite. We anticipate that the Hospital VBP Program percentage payment summary reports, which use these measures, along with the results of other measures, including the HCAHPS Survey, healthcare-associated infection measures, Medicare Spending for Beneficiaries, and the perinatal care, PC-01, measure will be released on or around August first of 2017. Before I turn the webinar over to our first presenter, I would like to remind you that if you have a question that you would like to ask one of our presenters, please type the slide number at the beginning of your question. I would now like to turn the webinar over to Miss Tamara Mohammed to present on the FY 2018 Hospital IQR Program claims-based measure results. Tamara, the floor is yours.

Tamara

Mohammed:

Thanks, Bethany. Hi, everyone. As Bethany mentioned, my name is Tamara Mohammed, and I am the Implementation Lead here at Yale's Center for Outcomes Research and Evaluation. And, as mentioned, I will be presenting today on the national results for fiscal year 2018 for the claims-based outcome and payment measures. And I will also briefly describe the approach that we use to categorize a hospital's performance against these measures in fiscal year 2018. Next slide, please.

So, this slide provides information on the national rates for 21 outcome and payment measures for fiscal year 2018 for the Inpatient Quality Reporting Program. Before I go into details around the slide, I'd like to mention a few important qualifying points. First off, these results are not yet public, as Bethany mentioned, in that they are not yet posted on *Hospital Compare*. So, if someone searches *Hospital Compare*, these are not the results that they will see at this point in time. Instead, these results will be posted on *Hospital Compare* later this year, during the summer. Secondly, although these results are not yet public, they are available to hospitals in the HSRs, so you can find this information in the HSR, in addition to more information regarding your hospital's calculations of these measures.

Thirdly, the fiscal year 2018 represents the first time that ICD-10 codes are being used to calculate the results for these measures. So although we haven't fully transitioned to ICD-10 codes for the measures, that is, the measures still use some ICD-9 codes for the calculations, these results here represent the first time, or the first glimpse that we have, of what the measure results look like when we use ICD-10 codes. And fourthly, this year, we will be reporting three new measures publically, and these are the three measures you see listed at the bottom of the table. They are the hip/knee or THA/TKA payment measures, the AMI and heart failure EDAC measures, which are the Excess Days in Acute Care measures. The hip/knee payment measure is very similar conceptually to the other payment measures. But the Excess Days in Acute Care measures are quite different; they are a new type of measure that we are publically reporting. These measures count the total excess days that patients spend in an acute care setting in the 30 days after their discharge from a hospitalization, index hospitalization. And an acute care setting is defined as, time spent in an inpatient admission, in an ED visit, or an observation stay. When they are publically reported this year on Hospital Compare, they will be reported as the Hospital Return Days measures. So they will have a different public-facing name than EDAC when you see them on Hospital *Compare*. Okay, then getting back to the actual information on the slide. The information you see in the second column represents the fiscal year 2018 national results for the IQR Program. And the information on the right-hand side, the third column, represents the difference in national results between fiscal year 2017 and fiscal year 2018, just so you get a sense of how much the measure results have changed nationally in the past year. So, the top of the table provides the results for the six mortality measures. These range in national performance from 3 percent for CABG mortality to around 16 percent for the pneumonia mortality measure. However, in comparison to fiscal year 2017, all of the measures have experienced minor reductions in the national rate, with the exception of the COPD and CABG mortality measures, which have experienced no change at all in the national rates. The eight readmission measures you see next have similar results. They all experienced minor reductions in the national rates. And, performance against these measures ranges from around 4.5

percent for the hip/knee readmission measure to around 22 percent, I think, for the heart failure readmission measure. Similarly, the complication measure had a minor reduction in comparison to fiscal year 2017, and the national performance for fiscal year 2018 is just shy of 3 percent. If we jump ahead then, to the Excess Days in Acute Care, the EDAC measures, again, you see some slight reductions in the rates – the results in – comparison to fiscal year 2017, with the 2018 results hovering around 3 – 3.5 days for AMI and heart failure EDAC. You will notice here that we don't present any summation on the comparison to fiscal year 2017 for the payment measures. And, that's because the fiscal year 2017 and the fiscal year 2018 measures are adjusted off inflation, based on different years. So it wouldn't be a fair comparison to look at the two results side-by-side in this particular way without actually doing further adjustments in inflation. However, you can see that in fiscal year 2018, the national results, the national payments for heart failure and pneumonia are around \$16,000 or \$17,000, whereas the national payment for the AMI and hip/knee payment measures are around \$20,000 to \$23,000. And the takeaway from this is that the fiscal year 2018 results don't look significantly different, or don't look much different, in comparison to fiscal year 2017, although any changes in the results you see, generally, are changes with minor reductions in comparison to fiscal year 2017. We're going to move on to the next slide, please.

And so we're going to shift the gears just a bit here now, and focus on understanding how the hospital results against these measures are categorized, so that's what the next two slides are going to present. As you may know, these performance categories that you see here are what are publically reported on the main *Hospital Compare* search pages when people search for hospital results. And so the image you see on the lefthand side represents the approach that is used for the mortality, the readmission, and the complication measures. But before I go into the actual examples we provide here, I just want to note that, these are not actual results for any hospital in the nation. These are all fake results, and they are used just as exemplification. So back to the figure on the lefthand side, if you look at Hospital A, which is the small green hospital at the top, it shows that the hospital's, let's say, readmission rate was 12.6 percent

with performance ranging with a 95 percent confidence interval rating from 9.4 percent to 14.3 percent. And this entire interval estimate is less than the national observed rate, which you see as the little grey dotted line there at 15.6 percent. And so this hospital's performance is categorized as better than the national rate. In comparison, if you look at Hospital C, which is the little red hospital at the bottom, it has a 95 percent confidence interval, that stands about 16.1 percent to 20 percent. And, the entire interval estimate lies, is greater than the national observed rate of 15.6 percent. Thereby, we assign this hospital to the category of worse than the national rate. And then, we have Hospital B, the yellow hospital in the middle, where the interval estimate includes or overlaps with the national observed rate. And, we therefore assign the hospital a performance category of no different than the national rate. If you look at the image on the right, it provides the approach that we use for payment measures, which is really quite similar to the approach that I just described for the mortality, readmission, and complication measures. The big difference is here that the labels are a little different here, so we use less than the national rate, no different than the national rate, and greater than the national rate here. And, we're comparing again, the hospital's confidence interval against the national average payment, which in this example, is around \$21,000. Can we go to the next slide, please?

And so this final slide shows the approach that is used for the new Excess Days in Acute Care, EDAC measures. Again, it's very similar conceptually to the way in which we assign performance for the mortality, readmission, complication, payment measures. However, the biggest difference here is that we are comparing a hospital's interval estimate against zero, and expectation of zero excess days, instead of comparing it to a national EDAC days. And, this represents a conceptual difference of the EDAC measure where we're looking at excess days, and not just total days spent in acute care. And so, you can see similarly, if the entire interval estimate is less than zero days, so that's the entire interval estimate that's negative, then the hospital is assigned a category of fewer days than average. That's the little green bar at the top. The red bar at the bottom shows the scenario where the entire, the entire interval estimate is greater than zero, thereby assigning the hospital the category of more days than

average. And then the yellow bar in the middle represents the scenario where the interval estimate includes zero days, and thereby the hospital is assigned a performance category of average days. And so, this is the end of my brief overview of the national results for fiscal year 2018. So, I'm just going to hand it over to Angie for the next section. Angie?

Angie Sour:Thank you, Tamara. As Bethany stated earlier, I'll be going over details on
receiving the HSRs, a review of [claims based measure] calculations and
the reading of the HSRs, as well as, a description of the process of
submitting a Review and Corrections request. Objectives for the
presentation are to identify how to receive your IQR and HVBP HSRs;
understand how to read the IQR HSRs; understand Excess Days in Acute
Care and hip/knee payment measures; comprehend the calculations of the
HVBP, AHRQ, and mortality measures; and identify the process of
submitting a Review and Corrections request. Next slide, please.

A *QualityNet* notification indicating the reports are available is sent via email to those who are registered for the notifications regarding the Hospital Inpatient Quality Reporting Program. Hospital users with the Hospital Reporting Feedback Inpatient role and the File Exchange and Search role will have access to the HSRs and the user guide. For those with the correct access, the HSRs and user guide will be in their My *QualityNet* Secure File Transfer inbox. Next slide, please.

The fiscal year '18 HVBP HSR user guide PDF document that accompanies your AHRQ and mortality HSRs includes additional information about the HSRs, and also includes the samples for the AHRQ and mortality replication process. The fiscal year 2018 Hospital IQR Program HUG, or hospital user guide, PDF that accompanies the IQR HSRs, includes additional information about the data in the HSRs. Next slide, please.

IQR HSRs are provided to hospitals so they may preview their information before it is publically reported. Here, we will provide an overview of the IQR HSRs. Next slide, please.

For IQR, you will receive an HSR bundle ZIP file that includes the following HSRs: readmission, hospital-wide readmission, mortality, complication, payments, excess days of acute care. And, the bundle also includes Hospital IQR Program HSR user guide, or HUG as it's sometimes referred to, and a note about the AHRQ HSRs for this year. The fiscal year 2018 IQR AHRQ HSR is not included in the bundle this year, and is anticipated to be available for the October 2017 *Hospital Compare* preview period. Next slide, please.

AMI and heart failure EDAC measures will be publically reported. These are new things for this year. They will be publically reported this year. The payment measure for THA and TKA episodes of care will be publically reported this year. EDAC performance category descriptions were updated, based on consumer feedback. The pneumonia payment cohort was expanded to align with the pneumonia cohort that is used for the mortality, readmission, and EDAC measures. The measure cohorts, planned readmission algorithm, and risk factors were updated with ICD-10 specifications. Those are the updates for this year for IQR. Next slide, please.

Each of the IQR HSRs use the same basic structure for consistency, with tabs, or tables, that provide the following information: your hospital's measure results, distribution of state and national performance categories, discharge-level data that was used to calculate your hospital's measure results, and case mix comparison of the risk factors used for risk-adjusting the measures. Next slide, please.

Each of the IQR HSRs starts with the measure, result or performance table, that provides your hospital's measure results for the measures included in the given HSR. It provides the following information: the performance category that will be reported on *Hospital Compare*. In the example here, no different than the national rate, is the comparative performance for each of the six readmission measures shown in the example. The number of eligible discharges included in the measure. Your hospital's rating for each measure and the interval estimates that were used to define the performance category that was assigned to your hospital. National values for

comparison, and, with the exception of AHRQ, state values for comparison. Next slide, please.

Each IQR HSR includes a Distribution tab that shows the distribution of hospitals across the different performance categories within the nation, and within your state. When coupled with the performance categories for your hospitals from the previous tab, this can show how your hospital's performance compares to the rest of the hospitals in the nation, and in your state. Next slide, please.

The readmission, mortality, hospital-wide readmission, complication, and AHRQ HSRs have a Discharges tab that provides the discharge-level data used to produce each measure. The readmissions, mortality, and complication HSRs include all discharges that meet the inclusion requirements for each measure, and use the inclusion/exclusion indicator to identify discharges that were excluded from the measure. In these HSRs, the counted discharges with an inclusion/exclusion indicator of zero can be tied to the denominator for each of the measures. Due to the volume of discharges in their measures, the hospital-wide readmission and AHRQ HSRs only include discharges that are part of the numerator for each measure. The count of events, for example, readmissions after complications, for the measure, can be tied to the numerator in the Measure Results tab. Next slide, please.

The EDAC HSR differs from the others in that it uses two discharge-level data tables to provide the discharge-level details and event-level detail. The Summary of Events tab lists the discharges that are included in the measure. It follows the same inclusion/exclusion numerator and denominator logic as the Discharges tab from the other HSRs. It lists summary-level event information about emergency department visits, observation stay visits, and unplanned inpatient readmissions within the 30 days following discharge. The ID number on this tab is used to tie the event on the patient level, to tie to the event on the Patient-Level Summary tab. Next slide, please.

The EDAC Patient-Level Summary tab provides the detail-level information for the ED, observation, and unplanned readmission visits

listed in the Summary of Events tab. There can be multiple patient-level summary records for each Summary of Events tab, record that had an event. Each individual event for a given discharge is listed on its own row and the ID number on the Patient-Level Summary tab can be used to tie the records to the corresponding records on the Summary of Events tab. Next slide, please.

The payment HSR has three tabs for providing discharge-level data: the Index Stay and Summary tab and two Post-Acute Care tabs. The Index Stay and Summary tab lists the discharges that are included in the measure. It includes all discharges that meet the inclusion requirements for each measure, and uses the inclusion/exclusion indicator to identify discharges that were excluded from the measure. It provides the summary-level payment information, and provides splits between facility, physician, and post-acute care payments. Next slide, please.

The Payment Post-Acute Care tab breaks out the post-acute care costs to provide further granularity on where the post-acute care payments were made. The Condition Payment Post-Acute Care tab provides distribution of post-acute care costs across 11 care settings for the AMI, heart failure, and pneumonia payment measures. The Procedure Payment Post-Acute Care tab shown here provides distributions of post-acute care costs across 13 care settings for the total hip arthroplasty, total knee arthroplasty, or THA/TKA, payment measures. Next slide, please.

Each IQR HSR, except for AHRQ, includes one or two case mix comparison tabs, with a distribution of patient risk factors for the included measures. Procedure-based measures are listed in a separate tab from diagnosis-based measures in the readmission, mortality, and payment HSRs. Not all risk factors apply to every measure. The term NA is used to denote risk factors that don't apply. If your hospital has no qualifying cases for a measure, then NQ will show in the risk factor cells. These are the conditions that are used to risk-adjust the measure rate to account for differences in the health of your patient population in comparison to the national average. Hospital percentages are provided, along with the state

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and national percentages, to let you see how your patient population compares for each risk factor. Next slide, please.

Next, we'll go into the HVBP AHRQ HSR. Please note that the data contained within this presentation is mock. Next slide, please.

The HVBP AHRQ HSR is laid out to provide hospital results in the first table. The tables that follow go into further detail to show how that information was derived. Table One provides the hospital results for the AHRQ PSI 90 composite measure that will be used in the Hospital VBP Program for calculating the achievement and improvement points for the AHRQ PSI 90 measure. The following columns are found in Table One: the performance period index value, which is a weighted average of an individual patient safety indicators or PSIs. This will be used to calculate achievement and improvement points for the AHRQ PSI 90 outcome measure in the Hospital VBP Program. The achievement threshold is calculated as the median index value among all hospitals with measure results, and minimum valid discharges, during the fiscal year 2018 baseline period. The benchmark is calculated as the mean average of the unrounded composite rate of hospitals in the lowest 10 percent of index values among all hospitals with measure results, and minimum valid discharges, during the fiscal year 2018 baseline period. The achievement threshold and the benchmark are provided here for convenience. Next slide, please.

Table Two provides details about the AHRQ PSI component measures that make up the PSI 90 composite. The composite is calculated from PSI 03, 06, 07, 08, 12, 13, 14, and 15. One thing to note here is the Number of Outcomes (or Numerator) row, because this ties to the information shown on Table Three. Next slide, please.

Table Three contains information on patient discharges that had an outcome of interest for at least one PSI during the reporting period. The count of discharges for each measure in this table should tie out to the number of outcomes (numerator) values that are shown for each PSI measure in row 11 of Table Two. The Measure column identifies which PSI the discharge had an outcome for. The PSI Trigger Diagnosis or Procedures column lists the diagnoses or procedures that triggered that

discharge for the specific PSI. Further to the right in this table, but not shown here, are the diagnosis codes with their related present on admission, or POA codes, and the procedure codes for each discharge. A trigger diagnosis will have a corresponding POA code as N or U; and N indicates the diagnosis was not present at the time of admission. The ID number provided allows you to reference records in this table without sharing PII or PHI. Next slide, please.

Replication instructions are included in the user guide that's distributed with the HSRs. These instructions enable hospitals to complete the calculations and verify the results presented in the HSRs are correct. A sample replication document in Excel can be requested through the *QualityNet* Help Desk. The Excel document provides step-by-step instructions, as well as, sample calculations. The following values can be replicated with these instructions: the observed rate, the risk-adjusted rate, the smoothed rate, and the composite value. Next slide, please.

This slide shows part of Table Two, to give you an example of calculations. It is advised to use Excel when performing the calculations, so the first step is to save a separate copy of the HSR to do your calculations in. Next, delete the footnotes under the table so there is room to perform the calculations below the data. Moving on to the calculations, the first step is to calculate the observed rates. This is done by dividing the number of outcomes, row 11, by the total number of eligible discharges in row six. Then multiply the result by 1,000 to give the observed rate per 1,000 discharges. The example on the slide only shows the process for column D, but each step should be completed for every PSI. In column C, below the table, there is an example of the calculations being used to calculate the observed rate per 1,000 eligible discharges for PSI 06. The results of performing those calculations are shown in cells D18 and D19; when the calculated value is rounded to two decimal places, the results should, and in this instance, do match cell D12. The observed rate is the actual number of outcomes per eligible discharge, the discharges, multiplied by 1,000, also referred to as the raw rate. Next slide, please.

Next, calculate the risk-adjusted rate per 1,000 eligible discharges. Continue these calculations below the ones in the previous step. Take the unrounded, observed rate calculated in the previous step and divide by the expected rate in row 14. Multiply the result by the Medicare FFS, which stands for Fee-for-Service reference population rate for each measure. These values are found in the HSR user guide. Lastly multiply the value by 1,000. When this value is rounded to two decimal places, it should match the risk-adjusted rate in row 13. The same calculation should be done for each component measure. The risk-adjusted rate per 1,000 eligible discharges is an estimate of the hospital's performance on each PSI, except the PSI 90 composite, if the hospital had an average patient case mix, given the hospital's actual performance. Next slide, please.

To calculate a smoothed rate per 1,000 eligible discharges, again, you will continue the calculations below the ones in the previous step. And, you will multiply the unrounded risk-adjusted rate from the previous step, by the reliability rate, which is row 15. Then multiply the national riskadjusted rate in row eight by one, minus the reliability rate. Finally, add these two values together. As the calculated value is rounded to two decimal places it should match the smoothed rate for 1,000 eligible discharges for this measure. And, this is shown in cell D7 of the report. The same calculation should be done for each component measure. Smoothed rates are calculated by taking a weighted average of a hospital's risk-adjusted rate and the national risk-adjusted rate. The weight used for the hospital's risk-adjusted rate is an estimate of its reliability. Sometimes a hospital's risk-adjusted rate may be zero as a result of having zero numerator counts. When this occurs, and there are fewer cases with which to estimate performance, the weight given to the risk-adjusted rate tends to be smaller, while the weight given to the national risk-adjusted rate tends to be larger because of data reliability. Therefore, it is not uncommon that hospitals with small sample sizes and zero numerator counts may have smoothed rates closer to the national risk-adjusted rate, rather than their own risk-adjusted rate. The smoothed rate reflects the fact that results for hospitals with small sample sizes are measured less accurately, i.e., they are less reliable, than for hospitals with a much larger sample size. The smoothed rate adjusts for sample numbers, for small numbers of

discharges, and offers a more accurate prediction of a hospital's expected performance with a large number of patients than the hospital's riskadjusted rate. Next slide, please.

The composite combines all of the component measures. So ensure each of the previous steps have been completed for each component measure. Again, continue these calculations below the ones in the previous step. The rows are hidden in this example for purposes of the presentation. To calculate the PSI 90 composite, divide the unrounded smoothed rate from the previous step by 1,000, then divide the result by the Medicare FFS reference population rate for that measure. Next, multiply the result by the measure's weight in composite. If a measure has zeroes in three eligible discharges, as is the case for PSI 13 in the example shown here, the national risk-adjusted rate is used in place of the smoothed rate for that measure. The calculations, in turn, would be, national risk-adjusted rate divided by 1,000. Divide the result by the Medicare FFS reference population rate for the measure. And, multiply by the measure's weight in composite. The final step is to sum the values calculated in the previous steps, the results of which are shown in row 37 of the example. This value, when rounded to six decimal places, should equal the composite index value in cell C9. Please note, the results you get for PSI 90 calculations may be different from the PSI 90 composite index value in cell B9 in Table Two of the HSR out to the fourth, fifth, sixth decimal places, due to differences in rounding between Excel and SAS. When CMS calculates the PSI 90 composite for the Hospital VBP Program, it uses SAS, and the value in cell B9 of your HSR is based on this SAS calculation. The sample calculations are shown in column B of the table. The result, the results of performing those calculations are shown in columns D through J. Next slide, please.

AHRQ differences across programs. So, this slide talks about differences in IQR and HVBP results for AHRQ. They are due, in part, to the following factors: different data periods are used for calculations, diagnosis and procedure code differences. The HVBP Program uses the same number of diagnosis and procedure costs for baseline and performance period. During the HVBP baseline period, which is July 1, 2010 to June 30

of 2012, only nine diagnosis and six procedure codes were available. The first time that 25 diagnosis and procedure codes were used was fiscal year 2019 HVBP baseline. And lastly, software version differences. The most recently available software is used to calculate HVBP baseline results, which was 5.0.1, fully recalibrated with Medicare population. And, for consistency, the same version of the software is used for the HVBP performance period. However, for IQR the most recently available software version is used, which is 6.0.2 fully recal, excuse me, fully recalibrated with Medicare population. Next slide, please.

Next is the HVBP mortality HSR. Next slide, please.

Similar to the VBP AHRQ HSR, the mortality HSR is laid out to provide the hospital results in the first table, and then, go into further detail in the tables that follow, to show how that information was derived. Table One provides the hospital results for the acute myocardial infarction, heart failure and pneumonia mortality measures that will be used in the Hospital VBP Program for calculating the achievement and improvement points for these outcome measures. The achievement threshold and the benchmark were calculated on fiscal year 2018 baseline data, and are provided here for convenience. The following columns are found in Table One: number of eligible discharges, which is a count of the discharges used for the measure calculation. Performance period survival rate, which is used to calculate achievement and improvement points for these outcome measures in the Hospital VBP Program. Achievement threshold, which is calculated as the median survival rate among all hospitals, with measure results and at least 25 cases during the fiscal year '18 baseline period. And benchmark, which is calculated as the mean average of the top 10 percent of survival rates among all hospitals that measure results and at least 25 cases during the fiscal year '18 baseline period. Next slide, please.

Table Two includes additional provider-level values that are used in the calculation of the performance period survival rates. As shown in footnote E, the calculation for risk-standardized mortality rate, or RSMR, is predicted deaths divided by expected deaths, multiplied by the national observed mortality rates. Footnote F also shows that subtracting the risk-

standardized mortality rate value from one, results in the performance period survival rate, shown here and in Table One. Footnote D shows that the national observed mortality rate is calculated as the number of observed 30-day deaths nationally, divided by the number of eligible discharges nationally. Since these are national values, this rate cannot be replicated with the data provided in the HSR. The following columns are found in Table Two: predicted deaths, which is the number of predicted deaths within 30 days from admission, on the basis of your hospital's performance, with its observed case mix, and your hospital's estimated effect on mortality. The expected deaths is the number, expected deaths is the other column, and it's the number of expected deaths within 30 days of admission, on the basis of the average hospital performance, with your hospital's case mix, and the average hospital effect. The replication process, detailed later, will show how the predicted deaths and expected deaths are calculated. The national observed mortality rate is calculated as the number of observed 30-day deaths nationally, divided by the number of eligible discharges nationally. The risk-standardized mortality rate, again RSMR, is the mortality rate that has been adjusted for differences in case mix across hospitals, and a hospital-specific effect. The performance period survival rate is calculated as one minus the RSMR. Next slide, please.

The discharge tables contain discharge-level data for all Part A Medicare Fee-for-Service (FFS) patient stays with a primary qualifying diagnosis of AMI, heart failure, or pneumonia, accordingly, that had a discharge date in the reporting period, for patients who are, were age 65 and above, at the time of admission. The ID number is provided as a way to reference records or avoiding sharing PII or PHI. The HICNO, or HIC number, column through the Discharge Destination column contain the data as it was pulled from the hospital claims. The Index Stay column indicates whether the stay is included in measured calculations, as indicated by a yes or a no. The stays that are flagged, "yes," represent the discharges found in the Number of [Eligible] Discharges column in Tables One and Two. For stays not included in the measure, the Inclusion/Exclusion Indicator column has numbers one through nine, indicating the reason, or reasons, why this stay was excluded. The corresponding descriptions for these

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numbered reasons are defined in the user guides that accompany the HSR. Next slide, please.

The Death within 30 Days column indicates that the patient died within 30 days of admission. Risk factor variable column – oh, excuse me – so the way to tell that, is that it's again, going to be a yes or no indicator in that column; if they died within 30 days it will say, "yes." Risk factor variable column contains the model risk factors, which vary by measure. Table Four in the user guide provides a description for each. Row eight in the HSR contains the model coefficients for each risk factor, which are estimates over data for all hospitals. Beginning in row nine of the HSR, under the risk factors, the cell will contain a one, if the patient was identified as having that risk factor, and equals the years above 65 for the age-65 variable; otherwise, it will contain a zero. Hospital effect represents the underlying risk of a mortality at this specific hospital after accounting for patient risk. And average effect represents the underlying risk of a mortality at the average hospital after accounting for patient risk. Next slide, please.

Again, the user guide is distributed with your HSRs, and contains replication instructions. And, an Excel document with sample calculations and step-by-step instructions can be requested from the *QualityNet* Help Desk. The replication process for the mortality measures includes the following steps: calculating predicted deaths, calculating expected deaths, calculating risk-standardized mortality rates, and calculating the performance periods survival rates. Next slide, please.

As with the AHRQ replication, save a copy of the HSR to work from, and complete the calculations in Excel, working below the actual data. The replication steps to be completed on the discharge-level worksheet for each mortality measure. The first step of replicating the results is to identify eligible discharges. To do this, you may limit the Index Stay column to "yes" by using the filters, as shown in cell I7. Next slide, please.

For each eligible discharge identified in the previous step, multiply each risk factor flag by the relevant coefficient, found in row eight. As an example of the calculation, the formula shown in cell L27 was used for the

cell next to it, cell M27. When the results are compared to the table, note the coefficients are brought down for the rows that had a risk factor flag of one. Note: the calculation uses the dollar sign symbol. This function specifies the row reference to row eight as calculations are copied to other rows. Next slide, please.

Next, sum all of the products, risk factor flag multiplied by coefficient, from the previous step for each index discharge. The calculation shown in cell AP25 is for the value in the first row, then add the hospital-specific effect value, that's found in cell AN8, in the example here. The calculation is shown in cell AQ25. Note: this example is for the AMI mortality measure. The heart failure and pneumonia measures both have more risk factors, so the formula examples shown in these steps would be different for those measures. Next slide, please.

Next calculated, calculate the predicted probability of a 30-day death for each stay using the formula shown in cell AR25. Note that EXP in the formula is the Excel exponential function. Next slide, please.

Finally, sum the predicted probability of a 30-day death for all of the stays to get the number of predicted deaths within 30 days from admission. When this value is rounded to two decimal places, it should match the predicted deaths value for this measure in Table Two. The example formula in cell AQ43 was used to sum the values for the predicted deaths, shown in cell AR43. Each hospital will likely have a different quantity of discharges, so the formulas will vary, and will need to be adjusted accordingly. Next slide, please.

To calculate the expected deaths, start with the summed products, risk factor flags multiplied by coefficient, that were created in the predicted deaths calculation, and add the average hospital effect; that's found in cell AO8, in the example. Next, calculate the expected probability of a 30-day death for each stay, using the formula shown, and the results from the previous step. Next slide, please.

And finally, sum the expected probability of a 30-day death for all of the stays to get the number of expected deaths within 30 days from admission.

When this value is rounded to two decimal places, it should match the expected deaths value for this measure in Table Two. The example formula shown was used to sum the values of the predicted deaths in cell AU43. Again, each hospital will likely have different quantities of discharges, and will need to adjust the formulas accordingly. Next slide, please.

To calculate the risk-standardized mortality rate, you first divide the predicted deaths by the expected deaths. The result is the standardized mortality ratio. This value is then multiplied by the national observed mortality rate from Table Two, to give the risk-standardized mortality rate. When this value is rounded to six decimal places, it should match the risk-standardized mortality rate found in Table Two. The Excel formulas used for the calculations are shown in column AS. The result of those calculations are shown in column AT. Next slide, please.

The performance period survival rate is calculated as one minus the riskstandardized mortality rate. When this value is rounded to six decimals, it should match the performance period survival rate found in Table Two. The Excel formula used for the calculation is shown in column AS, and the result in column AT. Due to differences in rounding between SAS and Excel, there may be minor differences at the sixth decimal place. When CMS calculates your hospital rates, it uses SAS, and the values in your HSRs are based on those SAS calculations. Next slide, please.

Next, we will go over the Review and Corrections process.

The Review and Correction period for fiscal year 2018 is April 11 of this year through May 10. Pay special attention to the deadline of the Review and Correction period since requests sent after May 10 will not result – will not be eligible to be considered for a correction. Next slide, please.

Review and Corrections requests can be submitted via email to <u>qnetsupport@hcqis.org</u>, that's <u>qnetsupport@hcqis.org</u>, or over the phone at (866) 288-8912, or over TTY at (877) 715-6222. When emailing in a request, include "Hospital VBP" in the subject line to aid in the help desk process. Again, if you are referencing a specific case or discharge, please

reference the ID number associated in the HSR rather than sending patient information via email, which would constitute a security violation. Next slide, please.

Suspected calculation errors on your report can be submitted for review with the possibility of a correction. General questions about the HSRs, the mortality measures, or the AHRQ measures, may also be submitted during the Review and Correction period. Requests for submission of new or corrected claims, however, are not allowed. A snapshot of the administrative claims data available approximately 90 days after the end of the applicable period is taken, in order to perform program calculations. For fiscal year 2018, the applicable period ended on June 30, 2015, and the administrative claims data file used for calculations was produced on September, September 30, 2016. The Review and Corrections process does not allow hospitals to submit additional corrections related to the underlying claims data used to calculate their rates, nor add new claims to the data-extract used to calculate the rates. CMS cannot regenerate the report for this period to reflect corrected claims. If your facility submitted, or wishes to submit, a corrected claim after September 30 of 2015, that pertains to an incorrect claim originally submitted prior to September 30, the corrected claim will not be included in your measure results. Because claims data are generated by the hospital itself, hospitals, in general, always have the opportunity to review and correct these data until the deadlines specified. In many cases where the claims listed in the HSRs don't match internal records, it is due to the fact that corrections were made to those claims after the deadline. This concludes my portion of the presentation. Bethany, I'll hand it back to you.

Bethany

Wheeler-Bunch:Thank you, Tamara, or, excuse me, thank you, Angie. We're going to be
starting off with questions for Tamara, and then, we will move to questions
for Angie. The first question for you, Tamara, is in relation to slide 11.
Can you please share again, what the public-facing name is for EDAC?

Tamara

Mohammed: Sure, the public-facing name for the EDAC measure will be the Hospital Return Days measure.

Bethany Wheeler-Bunch:	Thank you.
Tamara Mohammed:	You're welcome.
Bethany Wheeler-Bunch:	The next question for you is also in relation to slide 11. Please define acute care again. Also, when looking at readmission in mortality measures, should I look at acute care discharges or inpatient discharges?
Tamara Mohammed:	Sure. For the EDAC measures, an acute care setting is defined as, a stay in an inpatient admission. Or, it includes, as well, an ED visit or an observation stay. And, I think the reports that are posted online provide codes for how you identify some of those settings. With regard to the mortality and readmission measures, they are based on calculations – the calculations are based on discharges from acute care – from an inpatient setting in a short-term, acute care hospital.
Bethany Wheeler-Bunch:	Thank you. The next question, also slide 11. Readmission measures are still based on inpatient admissions and not ED or observation times, is that correct?
Tamara Mohammed:	Yes, that's correct. The readmission measures are calculated only on discharges from an inpatient admission. The EDAC measures are the only ones that use the ED visits and observation stay at this time.
Bethany Wheeler-Bunch:	Thank you. Next question, also slide 11. Are the national observed results risk-adjusted?
Tamara Mohammed:	The national observed results, did you say?

Bethany	
Wheeler-Bunch:	Yes, are the national observed results risk-adjusted?
Tamara	
Mohammed:	No, so the mortality and readmission measures, and complication measures have national observed results, and these are not risk-adjusted. They just, they are the observed results for the entire nation. The payment measures are risk-standardized, so that they, sort of, try to level the playing field comparing the dollars across different settings. And, the EDAC is measured, I believe, I think they may actually include some risk standardization in there. So they may be risk-adjusted, the EDAC measures, but I would have to confirm.
Bethany	
Wheeler-Bunch:	Thank you. And last question, also on slide 11. Can you please explain again why the payment measure results can't be compared to prior years, to understand if change is positive or negative?
Tamara	
Mohammed:	Sure. So when the fiscal year 2018 payment results are calculated the numbers that you see are generally adjusted for inflation, based on, I think it's 2016 dollars, for fiscal year 2018 reporting. And then, when you're looking at the fiscal year 2017 reporting, they are adjusted, based on 2015 dollars. So in essence, comparing fiscal year 2016 – sorry, fiscal year 2017 and fiscal year 2018 will be comparing 2015 dollars with 2016 dollars, which would not be a fair assessment. So you would have to adjust them for the same year, either 2015, or 2016, or whatever you choose, in order to actually compare them fairly.
Bethany	
Wheeler-Bunch:	Thank you. I'm now going to move on to questions for Angie. Just as a reminder, as you're submitting your questions, please enter the slide number, at the beginning of your question so we can better reference it on the slides. For Angie, the question is, why do we have different rates between IQR mortality and VBP mortality?

Alisha:	Hi, Bethany. It's Alisha. I can answer – I can take that question. While the reporting periods are mostly – mostly overlap, the VBP reporting period is three months shorter than the IQR reporting period. The VBP performance period will align with the IQR period starting FY 2019. There is also a different mix of providers included in the risk-adjustment for the measures. While for VBP, only VBP-eligible hospitals are included in the risk-adjustment calculations, IQR includes additional hospitals, such as critical access and territory. The difference is in included hospitals changes the national case mix that the hospitals are compared to in the risk-adjustment model.
Bethany	
Wheeler-Bunch:	Thanks, Alisha. And I'd also like to point out for the pneumonia mortality measures specifically, IQR is using the new pneumonia cohort that was implemented in FY 2017, so last year's results. VBP is not using that new pneumonia cohort yet; that is still just a couple of fiscal years down the road. So, you may see a difference in your pneumonia mortality rates just based on that change alone. Next question. If we have a coding error in one of our claims, can we get it corrected for this report?
Alisha Hutson:	CMS cannot regenerate the report for the period to reflect corrected claims. If a facility has submitted or wishes to submit a corrected claim after September 30 of 2016, that pertains to an incorrect claim originally submitted prior to September 30, 2016, the corrected claim will not be included in the measure results. If your quality review has identified a coding error on your claim, we suggest you correct the claim using CMS standard process. Also note that due to the length of the reporting period, if claims are corrected, they could continue to be included in future years, depending on the discharge period, which could impact your next year's results.
Bethany Wheeler-Bunch:	Thank you, Alisha. The next question. In the mortality hospital-specific report, if the hospital-specific effect is higher than the average effect, what does this mean?

Alisha Hutson:	If the hospital-specific effect is higher than the average effect, then the calculated predicted deaths for your hospital will be higher. A higher predicted deaths results in a higher risk-standardized mortality rate. Please note that the negative number, a higher value will be a smaller negative number or a positive number.
Bethany	
Wheeler-Bunch:	Thank you. The next question. Do we know when the THA/TKA payment measure will be included in the hospital star overall rating? And what about the EDAC measures?
Alisha Hutson:	At this time, payment measures are not utilized in the star rating at all. So that one will not be utilized in the near future. The EDAC measures will be included in the July 2017 star ratings; you should see those in that period.
Bethany	
Wheeler-Bunch:	Thank you. The next question. Do critical access hospitals get the hospital-specific reports if they voluntarily submit for the Hospital Inpatient Quality Reporting Program?
Alisha Hutson:	Critical access hospitals will receive HSRs. There isn't any participation requirement required. As long as the hospital is open, they will receive the HSRs, as long as they have the necessary role to be able to receive the reports through <i>QualityNet</i> .
Bethany	
Wheeler-Bunch:	Thank you. The next question. Could a patient death be included in two areas? For example, one patient's death be counted in the AMI and heart failure mortalities?
Alisha Hutson:	Cheryl can you take that one for me?
	[Momentary pause.]

Tamara	
Mohammed:	Hi Alisha, it's Tamara. I can help answer the question. The answer is, yes. If a patient, a particular, a patient, if a patient dies and they are within 30 days of index admission for two different mortality measures, then the death will be counted in both mortality measures. And that's because the cohorts for the mortality measures are calculated independently of each other; therefore, a single patient can be in two different measures simultaneously.
Bethany	
Wheeler-Bunch:	Thank you, Tamara. The next question is, Is the same data found in the IQR HSR also found in the IQR preview reports that were recently made available?
Alisha Hutson:	The same underlying data is in both the preview reports that were released, as well as, the hospital-specific reports. The preview reports have a higher level of detail, more, just the measure outcomes and how the measure, how the hospital measures against the nation. The hospital-specific reports have that level, high-level detail, but also have a very fine-grained detail of the individual discharges, as we've seen in the presentation. So, they both contain the data from the same calculations. One just has a greater level of detail.
Rothony	
Wheeler-Bunch:	Thank you. The next question is on slide 28. What does NQ stand for? If we could move to slide 28 really fast. And in specific reference, I think Angie said, if your hospital has no qualifying cases for a measure, then NQ will show in the risk factor cell.
Alisha Hutson:	Right, so that NQ is an in, indicating non-qualified.
Bethany	
Wheeler-Bunch:	Thank you. Our next question. Is the same data found in the IQR HSR also found – I think we actually just covered that one – that one must have been

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a duplicate question. Next question. How do these reports compare to the *Hospital Compare* report's star rating?

Alisha Hutson: So these reports contain the underlying measure data that are – for some of the measures utilized in the star rating, so this will provide the, the specific data for the measures and the star rating HSR provide data as how those measures are calculated into groups. And then, subsequently, into the overall star rating. So, there are separate HSRs for the measures, as well as, the star rating.

Bethany

- Wheeler-Bunch:Thank you, Alisha. The next question is, What diagnosis and procedure
codes are used for the FY 2018 Hospital VBP Program? And what are the
25 codes used for the FY 2018 IQR Program?
- Alisha Hutson:So this reference in the slide was specifically just trying to illustrate that for
an HVBP Program, only the first nine diagnosis and first six procedures
that were billed on the claim will be utilized in measure calculation.
However, for the IQR Program we utilize all 25 diagnosis and procedures
that were billed. So we don't we utilize whatever is submitted on IQR; on
HVBP, we take the first nine off the claim and the first six.

[Momentary pause.]

Bethany

- **Wheeler-Bunch:** Oh, sorry, I just noticed I was on mute. I was talking to myself. The next question. What does CMS propose that the quality department does with the risk factors that are shared with the risk-adjusted measures?
- Alisha Hutson: So for the VBP measures, the risk factor columns can be used in the replication process, as we saw on the slide, to allow us a better understanding of the case mix of patients, and how that affects the risk-adjustment. For IQR, the case mix information presented in the tables clarifies the difference between the observed readmission rate and the risk-

standardized rate in the measure results table. And basically, you can utilize the user guide for more information on those case mix tables.

Bethany	
Wheeler-Bunch:	Thank you. The next question. When the presenter says, "The computations should be done," does that mean we should verify these calculations or is it just to understand how the calculations are made?
Alisha Hutson:	So the replication process is intended to allow hospitals to be able to replicate results, if they wish. But it also does provide an understanding of the calculations. So, it's really up to the hospital how to utilize that, but the intent of providing the replication instructions is so that hospitals can replicate the results, if they wish.
Bethany	
Wheeler-Bunch:	Thank you. The next question, I think we might have touched on a little bit already, but I think it's good to reemphasize. For the corrections period, are we checking the math of these HSRs or are we checking our internal records to see if these particular cases and claims should have been even counted in the first place?
Alisha Hutson:	So the claims corrections, we've kind of touched on that a little bit, are not allowed during the Review and Correction period, although claims corrections should still be made because they might impact a future year. The intent of review and corrections is really to validate that the calculations done by CMS are correct, and you know, that can include anything, as far as, a suspected calculation error or, you know, if there's a specific claim included in the measure that you don't feel makes sense to be included in the measure. Those are valid questions during review and correction.
Bethany	
Wheeler-Bunch:	Thank you, Alisha. And just one more question. What is the difference between predicted and expected deaths? These terms sound similar.

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Alisha Hutson: Predicted deaths are the number of deaths within 30 days from admission, based on your hospital's performance with its observed case mix and your hospital's estimated effect on mortality; while expected deaths are the number of deaths within 30 days of admission, based on average hospital performance, which is your hospital's case mix and the average hospital effect on mortality.

Bethany

Wheeler-Bunch: Thank you. And that is all the time that we have for questions today. I know that there were many questions that were not answered during today's presentation.

We do plan on answering all of those questions in the next few weeks, so please check back to the qualityreportingcenter.com website, specifically, in the IQR or VBP Archived Events section. There, you will find the recorded webinar, the slides, and then eventually, the transcript of today's presentation, and most importantly, the Q&A transcript, where you will find all of the answered questions that were not answered during today's webinar. I want to say thank you again to Tamara and to Angie and Alisha and Joe who have been gracious enough to be able to present and answer questions for us today. I want to thank you all for attending. I will now turn it over to Dr. Debra Price to present on continuing education. Everyone, have a great day.

Deborah Price: Well, thank you, Bethany.

Today's webinar has been approved for one-and-a-half continuing education credits by the boards listed on this slide. We are now a nationally accredited nursing provider, and as such, all nurses report their own credits to their boards using the national provider number on the last bullet here, 16578.

We now have an online CE certificate process, and you can receive your certificates two different times. Right now, if you're still on the call and you're waiting for the last slide to appear, that will take you to obtaining your certificate. However, if you're in a room with someone else, you can

wait, because within 48 hours, we will be sending out another survey, and that survey will allow you to pass it to the other people in the room. After the completion of the survey, you just click the "Done" button at the end of, at the bottom of the page, and another page opens up that will help you get your certificate. If you have any problems however, please wait for tomorrow, or the 48-hour survey that's sent out, because we're asking you to register your personal email, and personal phone numbers, because nine chances of out of ten, the reason you're having problems is because your hospital has a firewall.

Okay, if you do not immediately receive the email to the address that you registered with, that means you do have that firewall up. And, you'll need to go back and register as a new user using a personal email and phone number.

This is what the survey will look like in the next couple of slides; in the bottom right-hand corner, you see the "Done" button. Click that.

And, this page will open up. There are two green links here. The top link is the New User link. That's the link that you're going to use if you've had any issues getting your CE certificate. The bottom link is the one that you'd use if you've not had any issues.

This is the New User link page. You'd note that you put your first name, your last name; and we're asking for a personal email and a personal phone number. And, this is the Existing User page. You put in your user name, which is actually your email; the complete email address, including what's after the @ sign. And, if you've forgotten your password, just click in the box, and you will be directed to a new area for a new password.

And now, I'd like to thank everyone for attending our webinar. We hope that you learned something today, and if we, again, if we did not get to your question, it will be addressed in the near future, and posted to qualityreportingcenter.com. Please enjoy the rest of your day, and thank you again for your time. Good-bye.