

**AHRQ Quality Indicator Software Version 4.1  
Additional Detail Webinar 2  
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**John Bott [AHRQ]:** Thanks to everybody for joining us today in this webinar series. I'd like to reiterate the primary objectives of this webinar series. We are reviewing the AHRQ Quality Indicators Version 4.1.

The first of the two primary objectives is transparency; we want to be very open with the AHRQ quality indicators on how they work so that people who use and are interested in the measures can be aware of the interworkings of the measures. Secondly, it's about knowledge transfer so we are sharing with people what we know and currently what we're learning in regards to the AHRQ quality indicators.

With those objectives we've launched this webinar series here in 2010, and that series began earlier this month where we did a very high-level overview of the changes from Version 3.2 to this version that we're in, Version 4.1, of the quality indicators.

I'll review today's agenda in just a second, but in general in today's session — in this second of this webinar series — is to go into some additional detail on some key topics related to the AHRQ quality indicators. Then after that, beginning later this spring, is to go over in greater detail even a number of aspects of the quality indicators where we can get further down into the leads.

In the idea of addressing the quality indicators at a different level is to appreciate the fact that different people have a different need to know in regards to the quality indicators, and so we want to keep that in mind and so moving from the 50,000-foot view right down into the weeds so to speak.

So quickly, the agenda for today which consists essentially of these four topics — three of them on Slide 2 — the first of which is tracking the indicators to talk about what changes there have been as far as adding and dropping measures, et cetera.

Secondly, the agenda item is related to incorporating new data elements into this Version 4.1 of the quality indicators such as POA. Third, incorporating new code into the quality indicators, the annual updates that occur such as in ICD-9 codes. In regards to the fourth agenda item today, is incorporating new data such as into the reference population.

To note, at the end of the more formal part of the presentation that we'll go into in just a moment here, we'll allow time to take your questions and we'll bring the operator back at that time to inform you how to ask your questions over the phone line, and to provide you also with an opportunity of your preferences to type your question in versus asking it over the phone. Keep your questions in mind, and we'll get to them after the presentation portion of this discussion today.

So then moving into the presentation portion, I'd like to introduce Jeff Geppert, who is the AHRQ Quality Indicators Project Director from Battelle Memorial Institute. So at this time I will turn it over to Jeff. Jeff?

**Jeff Geppert [Battelle]:** Thank you, John. Good afternoon and good morning to everyone, and thank you for joining us today. We'll start with our first topic area, which is the tracking of the indicators and I'm on Slide 4, for those of you who are following along.

The first category are indicators that were added in Version 4.1. There is a new module of indicators which we're calling the "neonatal quality indicators." This is a subset of the pediatric quality indicators. There are two new indicators that are included in this module — NQI #2, which is neonatal mortality and NQI #3, which is bloodstream infections in neonates.

The topic that I want to elaborate a little bit on today is the denominator definition for these measures. All of these measures are based on a denominator definition that identifies neonates. I want to draw your attention to the technical specifications for the AHRQ quality indicators. All of the technical specifications are on the quality indicators website, which is

<http://qualityindicators.ahrq.gov>. Each of the four modules — the IQI, PSI, PQI and PDI — have a page that has all of the documentation loaded onto it.

In the technical documentation there is an appendices document. In that appendices document, Appendix I provides the specifications for the concepts that are important to the neonatal definition for these indicators.

The thing that I want to just make sure that everyone understands is that the basic definition of a neonate is any discharge within age of days of admission between zero and 28 days. There are some alternative specifications for when the age and days data element is missing, but that's not a very common occurrence and the age and days variable is there 99 percent of the time.

The thing that I want to point out is that that's how the denominator is defined; discharges that meet that zero-to-28-day definition, but that the outcome event — whether it's mortality for neonatal mortality or bloodstream infection for NQI #3 — that can occur outside of that 28-day window and anytime before the neonate is discharged. So I just want to make sure that everyone understands that aspect of the way that these measures are defined.

The other concepts that are important for the neonate module, so there's the neonate definition which is the broadest definition, and then there are subcategories within that that are often important in the specification.

There is a newborn definition and so trying to identify those discharges for the birth of the baby, and then subcategories with the newborn are normal newborns — so newborns without any complications — and then further there are refinements to identify inborn and outborn.

Inborns are infants that were born during the hospitalization of interest, and outborns are newborns that were born outside of the hospitalization of interest. The specification for identifying all of those categories are included in this Appendix I.

The next topic area is the indicators that were deleted, and there were two patient safety indicators that were deleted. More specifically, they were moved out of the patient safety indicator module and into a module of what we're calling "experimental" indicators — indicators that sort of reflect important concepts, but where the way that the indicators are operationalized needs to be evaluated and refined. So there are different reasons for why these indicators were moved from the patient safety module.

For the complications of anesthesia indicator, there were four main sort of theoretical concerns related to the measure. The first concern being that the measure was heavily dependent on external cause of injury, or e-codes.

The second related concern was that the reporting of e-codes varies state to state. Some states don't collect e-codes at all, or require the collection or reporting of e-codes, or they might vary in terms of the number of e-codes. And then sort of a related concern to that is that the indicator rate was heavily dependent on sort of the number of codes that are reported. The more codes, the more likely the event was to be identified.

And then finally, and most importantly, the concern related to this measure was the criteria for reporting of e-codes in the ICD-9 official guidelines for coding and reporting. For most ICD-9 codes, you only code the diagnosis if the condition was unexpected or impacted materially the diagnosis and treatment.

The e-codes do not have that requirement; therefore, a lot of the subsequent analysis determined that this measure was identifying minor and sort of anticipated complicated — that were not the type of intended adverse event that the clinical panels that reviewed this measure had wanted to capture.

Now, the point that I want to clarify with you today is that all of these concerns could potentially affect any measure that uses e-codes in the numerator definition, so what

distinguished this particular measure was really sort of a matter of degree. It's the only QI that was entirely dependent on e-codes for the identification of numerator events, or nearly entirely in the evaluation of cases identified in the nationwide inpatient sample that AHRQ generates from the HCUP program. Out of maybe 1,400 cases that were flagged in the numerator of this indicator, only eight cases or fewer than ten cases would have been flagged without the consideration of the e-code, and so the degree to which e-codes impacted this measure was substantially greater than any other measure in the QI set.

Just to give you another sense of that, the other measures that rely on e-codes like PSI 5, foreign body; PSI 15, accidental puncture and laceration; PSI 16 transfusion reaction — in these cases there are e-codes in the definitions, but they tend to be sort of in addition to other non e-code codes that are also in the numerator definition.

So for PSI 5, for example, in the most recent data, over 90 percent of the cases that are flagged in the numerator have both an e-code and a non e-code, so only 8 percent of the cases are flagged not only because of the e-code; for PSI 15 it's over 96 percent that are flagged with both codes, and that's only 4 percent are only because of the e-codes and 16 similarly, with similar percentages. The impact of e-codes is materially less for those measures, and that's why they're retained while complications of anesthesia was dropped.

The issue with PSI 20 is really different; it is an issue of a few versions ago harmonizing the OB trauma measures with the then existing specifications as implemented by the Joint Commission, which removed a set of codes from the numerator definition — leaving the remaining set of codes really only relevant to non-Cesarean deliveries. So that was an issue of where the numerator specification really did not apply to the denominator population at risk.

The next category of changes are related to measures that were renamed or potentially renumbered, in the patient safety indicator module, PSI #3, where decubitus ulcer was

renamed “pressure ulcer.” In a couple of slides we’ll talk about the rationale behind that and the coding behind that.

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Moving on to Slide 5, another significant measure that was renamed is PSI #7, which used to be known as selected infection due to medical care, but is now known as central venous catheter-related bloodstream infections.

Again, it talks about the coding and the rationale that led us to make this naming change. And finally, both an indicator that was renamed and moved, the pediatric quality indicators, PDI #4, in the pediatric quality indicator set was moved into this new subset module — the neonatal quality indicators and given the number NQI 1, in the new NQI set.

Okay, moving on to the next slide, Slide 6, there are two indicators that were moved out of their SAS module, the syntax that implements the measures in using the SAS software. The reason for this move was so that the data that was used in the definition of the measures could be subsetted into either adults or pediatrics.

All of the measures that are defined on a pediatric population using pediatric discharges were put into the pediatric SAS module; although, they remained conceptually part of their preexisting module set. For example, for PSI 17, birth trauma, that measure is now defined in the SAS syntax for the pediatric quality indicator, PDI. But the technical specifications for PSI #17 remain with the patient safety indicators. Similarly for the PQI #9, low birth weight, the SAS syntax to implement this measure is now in the pediatric quality indicator module, but the technical specification remains in the PQI technical spec document.

Just as a side note in terms of how we define adult and pediatric in the QI software, it’s defined based on age. So the pediatric population is an age of admission of less than 18, but it also includes MDC 14, which is the pregnancy, and so the adult module includes any

discharge in MDC 14 regardless of age. So conversely, the pediatric module includes discharges that are under 18 and not in MDC 14.

You'll notice that when you run the module that your output file will contain fewer records than your input file, because of this age and MDC restriction. Now, because this is merely a data processing change and not a conceptual change, there is no comparable movement in the Windows version of the software. In the Windows software, the indicators are organized into tabs that you use to select which measures you want to use in your reporting and the measures remain in their preexisting tabs.

While we're talking about Windows, I'm sure that many users on the call today will be asking about the availability of the Windows software, and we anticipate that it will be released shortly within the next few weeks. It's undergoing some final harmonization and testing with it.

The companion piece of software that AHRQ is currently developing called "MONAHRQ," which is basically a public reporting tool, and so we anticipate those two pieces of software being released kind of along the same timeline within the next couple of weeks.

So we wanted to talk a little bit more specifically about some of the coding changes and some of the resulting specification changes that were material in terms of how the numerator and denominator are defined. So we wanted to highlight three cases in particular, and the first one is a measure in the inpatient quality indicator set, esophageal resection, and then there's both a volume and a mortality version of that. There was a new code that was added to the denominator definition for mortality or the volume definition, which is 43.99 — other total gastrectomy.

The reason that this code was added is because there were some existing publications and some user reports that found that many of the procedures that were of interest in this measure were being coded under this 43.99 code, but it also included procedures that we were not

interested in including in this denominator definition. So the way that this is implemented in the software is that these cases are included in the denominator or the volume measure, only if this procedure code is accompanied by a set of associated diagnosis codes for esophageal cancer.

Those codes are listed in the technical specs where you can see the details, but it's worth highlighting because it has a fairly significant impact on the size of the denominator, whereas under the prior definition there were about 4,200 cases or so that were identified in the denominator. Under the current definition, it's closer to 5,700 so it is a fairly significant increase in volume. So if you see an increase in your weights — in your data — that's the reason why and the rationale for the change.

The two other coding changes that resulted in some pretty material changes in the measures are for PSI #3, pressure ulcer and PSI #7. First on PSI #3, there are new stage codes for stages one through four and not otherwise specified that were incorporated into the specification for this Version 4.1. I wanted to make sure that everyone was clear on how this was operationalized in the current software, so I'm going to navigate over to the technical specification document for pressure ulcer. This document is on the QI website, and you can look at it at your leisure.

What I wanted to point out is that the way that this was operationalized is as an exclusion. So the current software uses the existing set of decubitus ulcer codes, which we're now calling "pressure ulcer," that are all organized by site for the numerator. That's what's being shown here on the screen. And then as an exclusion from the denominator, you'll see a list of exclusion criterion and the fourth from the bottom says, "With any diagnosis of stage one or stage two pressure ulcer."

So what we're doing is we're excluding cases from the denominator that have that stage coding in them. The reason we did it this way is because, as we've mentioned before, we don't have any current data that implements this stage coding and we won't for another

couple of cycles on releases. So we need to basically rely on the observed rate for this measure until we have an update available that we can incorporate into our risk adjustment models.

So what you will see is a fairly significant drop in the number of cases that are flagged in the numerator for this measure, if you are using data after October 1, 2008 that incorporates this stage coding.

The other way that we could potentially have implemented this change was to do a time-dependent numerator definition where we used the site codes to define the numerator up until the implementation of the stage codes and then the staged coding definition after the implementation date. So that is a piece of analysis that we're going to continue to look at and continue to evaluate. As we get data, we might potentially implement a time-dependent definition depending on what the data show. I just wanted to make sure that people were aware of how it was being done currently.

And the next coding change that we wanted to focus on was PSI #7, the central venous catheter-related bloodstream infection, formerly known as selected infections due to medical care. Then the implementation of a new code, 999.31. I just wanted to make sure that everyone was clear on how this was implemented in the current software and what an alternative implementation might have looked like.

So this is the technical specification for PSI #7 that I'm looking at on the screen. You can see that prior to October 1, 2007 — so this is an example of a time-dependent numerator definition or for discharges before this particular date the numerator definition was based on these two codes — the 996.62 and the 999.3. And then for discharges after October 1, 2007, we implemented the new code, which is the 999.31, infection due to central venous catheter.

So now empirically what you will see in general is that in the HCUP data — the state inpatient data — we see approximately 10,000 cases identified under the old definition up

until the implementation of the new code, and then we see about 5,000 cases being flagged so there's about a 50 percent drop in the number of cases that are flagged in the numerator of this measure. You will probably see something comparable when running your own data on calendar year 2007 data.

Now, an alternative way that this might have been implemented was to focus more on the fact that this 999.31 code, this new code, was drawn primarily as a refinement of the 999.3 — sort of a subset of the 999.3. So what we might have done was used just the 999.3 code before October 1, 2007, and then just the 999.31 code afterwards.

Since that was sort of a closer or an approximation of our current definition, you would have seen a less significant drop in the number of cases that are identified, but we didn't do it that way because we defined the measures as they were sort of officially defined as RQIs — both before and after the implementation date. Since we never had a code that was limited to just the 999.3, we didn't implement a measure in that way. For your own internal purposes — for purposes of tracking — you would get closer to the current definition by just focusing on the 999.3 codes before October 1, 2007.

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Now we're moving on to Slide 8, which is the "present on admission." So we just wanted to talk a little bit more in detail about these new data elements that were incorporated into Version 4.1. What we'll focus on today is how the new data elements are used in the identification and the citing of the cases — in the identification of the numerator and the denominator for the measures.

Then what we'll focus on in our first in-depth webinar that we'll do coming up, is we'll focus on how the present on admission data is incorporated into the computation of the rates — in particular how it's incorporated into the calculation of the risk-adjusted rates both in

circumstances where the POA data is available and in circumstances where the POA data is not.

What we're assuming in the QI software is that the input data follows the UB-04 coding. In the UB-04 it's form locator 67, FL 67. It has these values: Y, present on admission; W, clinically undetermined and E for exempt are all coded, sort of mapped in the software to a binary zero or one — with one being present on admission and zero being not present on admission. So Y, W and E are all mapped to “1,” present on admission, and N and U are mapped to “0,” not present on admission.

Now, the software will also accept the earlier coding which was just zero and one as acceptable input values. So if you code the POA flag as a “1,” that will count as present on admission, and “0” will count as not present on admission.

Some people have asked how in some of the CMS documentation it indicates that exempt codes are coded with a “1,” but in the HCUP data at least that was thought to be too ambiguous of a coding so the exempt codes are coded with an “E” rather than a “1.” For purposes of the QI software there is no distinction between the code of “E” and the code of “1.”

We're going to switch over to just some empirical data just to make sure everyone sort of understands how this works in the software. There are basically two flags that are created in the software.

In the SAS syntax there's a variable that begins with a T, which is coded as a “0” or a “1” if the case is in the denominator and it's coded with a “1,” if the case is in the numerator for the measure. Now, there is a new variable called Q, which is coded as a “0” if the case is not present on admission and as a “1” if the case is present on admission and ought to be excluded.

So in this first SAS module, this SAS 1 module both of these measures are defined so that you can see by looking at a crosstab of T and Q, how many cases were flagged sort of without the consideration of the POA and how many cases would be excluded if POA were considered. This is an example from PSI #6, iatrogenic pneumothorax using the reference population state inpatient database for 2007.

We can see that there are roughly 14 million or so cases that don't have POA for the states that report POA. For those that do report POA, in the numerator the cases that are flagged as a "1" in the T-variable, roughly a third of those of cases — a little less than a third of those cases — are flagged as being POA with the POA data and so 1,205 cases out of a total of approximately 3,900 cases.

You can do your own kind of analysis on your own data to see what the impact of the POA coding is. The way that this works in the software is that looking at each case in the diagnosis codes below provides some examples of how a coding is considered.

So in the first case you have a secondary diagnosis of 512.1, which is iatrogenic pneumothorax code. Then we looked at the present on admission code and it's being flagged as an "N," not present on admission, so this case is included in the numerator. This would be flagged as a T-value of "1," and a Q-value of "0."

In the second case, we also have a secondary diagnosis code of 512.1; however, the corresponding POA flag is a "yes," so this will be coded as a T-value of "1," but a Q-value of "1," and then in the subsequent processing both cases will be dropped from the denominator.

The POA determination, the value of Q is a discharge-level determination. So if there is a diagnosis code, secondary diagnosis code of 512.1 that's coded as present on admission, the entire case will be dropped.

The other example that I wanted to walk through for the present on admission coding is for how it's used in the determination of comorbidities. This is an example from the inpatient quality indicators, IQI #15, AMI mortality. You may know that for the mortality measures we used APR-DRG with the risk of mortality subclass as our set of covariates for the risk adjustment models.

So here POA is used in the determination of the appropriate risk of mortality subclass. So if a secondary diagnosis is coded as a comorbidity, then it's included in the determination of the subclass. If it's coded as a complication — something that happened during the hospital stay — then it is not. The risk of mortality subclass is intended to be determined as a point of admission.

So the empirical sort of consequence of that is that cases that would have been assigned to a high level of risk are assigned essentially to a lower level of risk, because these complications which generally have high mortality rates associated with them would have put that case into a high level of risk. You will see a shifting to the cells in the lower left — from a four to a three; a three to a two; a two to a one. Then in some rare circumstances you might see an actual increase in the risk level, but that happens infrequently.

So that's for POA. Now we're moving on to Slide 9, which talks about the point of origin. I just wanted to make one point about that. So point of origin is a new data element on UB-04. It's FL 15 for place of admission source. Because not all states are requiring the collection of point of origin, the software accepts both the admission source and point of origin as valid input data elements. You can choose one or the other or both. If you only have one of them available, you need to include the other in the input data file, but it can be blank.

There has been some question about the recoding of point of origin for newborns, and so I just wanted to walk through that briefly. In the software you'll see, in the specifications you'll often see logic that conditions on admission type. I'm looking at the point of origin values,

because there is a recode that occurs for the point of origin data element when the admission is newborn or not.

If the admission type is not newborn, the three values that we rely on predominantly in the QI software is four, five and six, where we're trying to identify patients that have been transferred from a hospital or from some healthcare facility. This is how we are now able to identify these patients, whereas under the old admission source many of these patients would have been coded as admission source for emergency department.

But when the admission type is newborn in the HCUP data, that is a value of four for the admission type variable. Then this data element is recoded. Four is not valid or not used; five indicates a newborn that was born inside this hospital; six indicates a newborn that is born outside of this hospital. You'll see particularly in the neonatal specifications a reference to those values when we're trying to make a distinction between an inborn and an outborn.

Now, there are some measures where the availability of point of origin that might make a difference in the rates. So what we've done to account for the fact that not all hospitals have access to point of origin — or not all states have access to point of origin — is to include in effect in the models, to account for any average difference in the impact on the rate. We'll go over some examples of that when we go into more depth on our risk adjustment models.

The next topic area is incorporating new coding. Again, Version 4.1 incorporates ICD-9 codes through fiscal year '09, and so we're currently working on the implementation of ICD-9 codes for fiscal year '10.

We anticipate the availability of that software release sometime in the spring when folks start getting access to their fourth quarter data — some time at the end of the first quarter of 2010. There will be a new release that comes out in a few months that incorporates the fiscal year 2010 ICD-9 codes.

Similarly, that release will incorporate the fiscal year 2010 DRG codes for the MS-DRG and for the APR-DRG. We just want to emphasize in case there's any confusion that the software does allow for the use of Version 24 in the determination of the measures, even for fiscal years where Version 24 no longer applied. The reason that we did that was because we heard from users that some pairs were not adopting MS-DRGs and we were using the older DRG system, and so we allowed for that in the software implementation.

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We do want to make sure that people realize that Version 24 is not actively supported and the longer that we go from the implementation date of MS-DRGs, the more out of date Version 24 will be — until eventually we do envision kind of weaning yourselves from Version 24. But the software will continue to allow for the use of Version 24 — and earlier — so that people can use older data. But eventually the fact that Version 24 is not actively supported, will result in some anomalous results.

The other thing that many users have questions about is related to how the MS-DRG and the CMS-DRGs are used in the software, in particular in the identification of covariates the risk adjustment models so I wanted to walk through an example of that — of how we currently treat both, what we call the MS-DRG which is the Version 24 and before, and the MS-DRG which is Version 25 and later.

So I've got an example on the screen of the type of mapping that we have constructed between these two DRG systems. We've constructed the mapping in such a way that it results in some mutually exclusive broader categories, which we call the modified DRG or the MDRG.

Often, people who are looking at the software will see a reference to a DRG code that doesn't look like a DRG code, and the reason for that is that it's these modified DRG codes that we create in the software in order to create these mutually exclusive groups. The other reason for

the creation of the modified DRG categories is so that we can pool the DRGs that make a distinction between with or without comorbidities and complications. That categorization has become even more refined with the MS-DRGs.

So in this example on the screen we have two CMS-DRGs, 146 and 147, that have been mapped to an MDRG of 0603. The corresponding MS-DRGs are 332, 333 and 334. Those are also mapped into the software, into the modified DRG of 0603. It's the modified DRG that we then use to identify covariates for the risk adjustment model that incorporate DRG, and it's also these modified DRGs that we use to create the denominator for the low mortality DRG measure.

So in that measure we limit the denominator to basically modified DRG categories that have a risk of death at less than half of a percent, and that has to be true for each of the sub-DRGs as well. As we start to get more and more data that's coded with the MS-DRG, then we'll use the MS-DRG as the basis for establishing the denominator for that measure.

Then eventually once we've got a couple more years of the MS-DRG to incorporate into the software, then we'll more fully convert to the MS-DRGs and not be so restricted to the maintaining of this concordance between the older and the newer version. Since people are using data from just a few years ago to look at trends, we wanted to make sure that the data were available.

Users will often ask us questions about the ICD-9 codes when they're looking at their own cases, and these questions have often led us to consider proposing an ICD-9 refinement to CMS and to CDC and CHS.

These are a couple of recent examples where we've made proposals to the ICD-9 coding Coordination and Maintenance Committee for changes. You'll see some of these being implemented in the next release for fiscal year '10, that have been adopted by the Coordination and Maintenance Committee.

We just wanted to encourage users to think of ways in which the coding might be refined and improved in order to make them more useful for your own quality improvement efforts.

Finally, I wanted to talk briefly about the new data. One of the significant changes that was implemented in Version 4.1 was the use of a one-year reference population. In Version 3.2 and before, we used a three-year rolling reference population in order to sort of balance the currency of the data with sort of the robustness of the data.

But because of all of these coding and data element changes that we've been discussing and the realization that the pace of change in coding and data availability will continue to increase and accelerate, we've adopted a one-year reference population in the Version 4.1.

I wanted to sort of emphasize that because we rely on these state inpatient databases under the HCUP program, the data sources are quite large. For the adult population, there's a little over 27 million records that we use for the calculation of our benchmarks and our risk adjustment models.

For the pediatric module there are slightly fewer observations; still a large number with a little over 5.5 million. The relatively fewer number of pediatric discharges did have somewhat of an impact on the risk adjustment models that were developed for the pediatric module.

In particular, we used a set of covariates that have an adequate number of cases to estimate the material effect on the rates. Because the events in the pediatric population are often quite infrequent, that sort of restricts the number of covariates and comorbidities that one could potentially identify in the pediatric population.

The result of those models are slightly less parsimonious or slightly more parsimonious than they were in Version 3.2, where there wasn't sort of a comparable impact on the models that were used for the adult measures — both in mortality and in the patient safety measures.

Both models are very similar to what they were in Version 3.2, but you would notice that the pediatric versions have a smaller list of comorbidities than Version 3.2.

The other thing that I just wanted to make sure that people were conceptually aware of is that often users are applying the software to their own data, which we refer to as a population of interest — the population that's of interest to you in your analysis.

So long as the population of interest that you're using is basically reflective of the one-year reference population that we're using, you know, the rates ought to be pretty closely calibrated so that you'll get observed or expected ratios that are pretty close to one. The average rate for your hospitals will be pretty close to the benchmark rates that are based on the 2007 SID.

But to the extent that that is not the case, you can start to see some differences in the calibration of the models. For example, you might be applying the software to different years than are used in the reference population. That might be more current years, like 2008, and soon 2009 or it might be earlier years for historical analysis.

You might be applying the software to a slightly different population. It might be, for example, Medicaid only or non-elderly or elderly. To the extent that those populations differ based on the characteristics that are not fully captured as covariates in the models, you might see a difference in the calibration of your rates — for your ratios that are slightly greater than one or slightly less than one.

You might be focusing on a different subset of hospitals where the reference population focuses on all community hospitals. You might be excluding particular categories of hospitals — critical access hospitals. You might be looking at pediatric populations, and so you might be looking at both community hospitals and children's hospitals.

To the extent that your population of hospitals captures a different set of institutions systematically than the reference population, you might see a different calibration of the rates.

We just wanted to raise those topics and make sure that you're aware of them, because they can impact how you interpret the data that you're seeing, and the fact that often you need to sort of compare hospital performance relative to each other in your dataset — if there's a difference in the way that the data are calibrated.

Okay, at this time I'll turn it back over to John.

**John Bott [AHRQ]:** Okay, thanks Jeff. So in just a moment we'll get to your questions that you might have for us over the phone or online, but just two slides really before that time. So this slide shows what our draft ideas are for the forthcoming webinars for 2010 to relay in greater detail the changes from Version 3.2 to the current version that we're in, Version 4.1.

So to quickly walk through this draft list of topics, as Jeff noted, likely the first topic we'll start with this spring is to talk further and in more detail about risk adjustment — especially as it relates to present on admission. What we have yet to touch on to any degree is the AHRQ QI composites or really the area-level AHRQ quality indicators.

And then throughout the year as we reach topics — as things are going on in the environment around us and at a time that makes sense — we'll then bring up those topics such as CMS. As people may realize, CMS is moving towards using a number of their quality indicators in hospital compare. In a timely way we'll further provide some updates in regards to such salient topics and timely topics as that. We're open to other ideas as well. This is really just the short list to open up to additional ideas that people may have for topics. We can hear those today, or if people want to send ideas to us at the support line link that's noted here.

Slide 13, we always provide a slide like this in presentations on the quality indicators if you're interested in where more resources are located in regards to the quality indicators. This conveys that here in Slide 13.

So at this point if people have questions, we'd be happy to entertain those. I will call upon Sandy the operator here at this time to provide you with instructions for how you can go about verbally asking a question or typing in a question online. Sandy?

**[Operator]:** Thank you. At this time if you would like to ask a question over the phone, please press “\*1” on your touchtone telephone. You will be prompted to record your name so that you may be introduced. Once again, please press “\*1.”

*[01:00:00]*

**John Bott [AHRQ]:** Typically, we'll pause just a second here to get people a chance to queue up. Typically, by this time we've had a number of questions that came in at least online to start with. So far at this time we have no questions online. Sandy, do we have any verbal questions yet at this time?

**[Operator]:** I'm showing no audio questions.

**John Bott [AHRQ]:** Okay, we'll pause just a moment to give people a chance to queue up. Hang in there for just a moment and we'll give people a few seconds to either type in a question or to queue up. To make sure that people have a chance, so we'll just pause a moment or two here and I'll call on Sandy again.

**[Operator]:** If anyone would like to ask a question over the audio, please press “\*1,” or they may type in their question to the other Q&A tab at the top of their screen.

**John Bott [AHRQ]:** Okay, we still have no questions at this time that came in over the Internet. Sandy, do we have any verbal questions queued up?

**[Operator]:** I have no questions over the audio.

**John Bott [AHRQ]:** Okay, well we'll wrap up the call then at this point, this particular webinar. So on a couple of ending notes, please look for any listserv email announcements to announce future webinars. We are projecting in the spring is when we will have the next webinar. If you come up with a question that you want to type in, we can respond to that in the Q&A and post it online, but thank you for participating in this call today.

*[WEBINAR CONCLUDES]*