AHRQ QI v2019 Software Release Webinar

Thursday, August 1st, 2019

Transcript

>>DIANE: Welcome everyone to the AHRQ Quality Indicators Software: Version 2019ICD-10-CM/PCS webinar. My name is Diane Stollenwerk and I'll be the moderator for the day. We are very pleased to have all of you here from all across the country. People are still gathering, but we're going to get started. And first we want to share with you a few housekeeping items. Next slide.

Alright, so, as we get started with the webinar, we wanted to let you know that this webinar will be recorded. And the value of that is that it's going to be available then on the AHRQ QI website. There is a link there as you see on your screen. Please know that these slides will be emailed to anyone who has registered for this webinar, and they will also be available on the AHRQ website. So, as you go through and you see these links you will have access to these slides if you registered for the webinar. Due to the large number of attendees, everyone who has dialed-in is in listen-only mode, however, we're very interested in questions that you might have. So, please use the question feature to be able to submit questions at any time. I do want to say that if you have more than one person from your organization dialing-inform the same location, and it's feasible to gather and use the same phone line, or same line tube participating, we'd appreciate it if you would do that. And then back to the issue around questions, please use the question feature to submit them at any time. Your questions will only be visible to us as the moderators and we will address those questions during the Q&A portion of the activities today. And then if you have any technical difficulties, you can see at the bottom of your screen Madeline Polese's email address. It's mpolese@air.org, and she will jump right on it and help you with any technical difficulties you might have. So, go ahead, we'll move to the next slide. This is what we'll be covering today.

First, we'll give a brief overview of the AHRQ QIs. We know many of you are very familiar with them, but we always have people joining in who are new. And we want to make sure everybody starts with foundation of understanding. So, we'll give that overview of the AHRQ QIs. And then we'll talk a bit about the retirement of certain AHRQ Quality Indicators, and as you'll see in the version 2019 SAS and Win QI software. And then we'll be sharing with you an overview of the improvements that have been made to the software, including risk-adjustment, and we're very about excited this. So, we're pleased to share this with you today. Another piece then, we'll move on and talk about specification changes for select Quality Indicators. And then covering what are the resources that are available to you regarding the version 2019 SAS and Win QI software. And then finally we will move into a question and answer session. And, again, submit your questions at any time and we will address those questions during that portion of the webinar today. So, next slide.

So, here's who you will be hearing from. My name, again, is Diane Stollenwerk I'm the President of the small consulting firm called Stollenwerks. And I've been part of the AHRQ Quality Indicator team for several years. We also are pleased to have with us today Mia DeSoto, who is the Health Science Administrator and the Program Lead of the AHRQ Quality Indicator sat the Agency for Healthcare Research and Quality. We have Alex Bohl, who is the Associate Director of the Hospital Quality Indicator project, and he is a Director at Mathematica. He is joined by his college Eric Stonewood is Senior

Researcher in the Area Quality Indicator project, a Director at Mathematica. We also with us today Vivek Kumar, who is the Senior Project Manager of Pantheon Software. And as a resource, we also have Dr. Patrick Romano, who is a Professor of Medicine and Pediatric sat the University of California, Davis School of Medicine, and has been a resource for their Quality Indicator projector many years. So, with that, I'm going to go ahead and turn it over to Mia DeSoto to give you an overview of the AHRQ QIs.

>>MIA: Thank you, Diane. Welcome everybody to their QI Software Webinar. We welcome you all and good afternoon to those who are on the East Coast and good morning to those on the West Coast. I'm going to do a quick overview of the AHRQ QIs. Some of you may already know that the AHRQ Quality Indicators were originally developed at the request of our HCUP partners in 1999. The QIs as we know today would not exist without the support of our HCUP partners. And we hope to continue to bring value to this partnership. Also, thanks to the data from our HCUP partners it allows us to do all payer risk- adjustment modeling as it is critical for benchmarking and internal evaluation. The goal of QI program is to focus on end-users quality improvement activity such as population health, patient safety monitoring, and inpatient mortality and utilization of procedures. Currently, the QIs represent four domains of care addressing prevention, inpatient care, patient safety, and pediatric care. We have organized them into QI modules. PQIs, or Prevention Quality Indicators, are reported at the county level and are population-based measures. These are conditions for which access to high quality and well-coordinated ambulatory care can potentially prevent the need for hospitalization. Or for which early intervention can prevent complications or more severe diseases. IQIs, or the Inpatient Quality Indicators, cover mortality, morbidity, utilization, and volume. These indicators are often used in public reporting efforts', or Patient Safety Indicators, focus on potentially avoidable in-hospital complications and adverse events during surgeries and procedures. Some examples include measurements of avoidable complications such as pressure ulcers and post-operative sepsis. Finally, PDIs, or Pediatric Quality Indicators, are hospital-based measures covering patients under the age of 18 including neonates and they cover a wide range of conditions. They are very similar to our other modules, but are adopted for the pediatric population. Next slide, please.

The AHRQ QIs are standardized evidence-based quality measures. They're calculated using readily available hospital claims data. Hospitals can run their own data through the program or data aggregated across many hospitals such as some CMS or other large datasets. AHRQ offers two free software platforms to help users create the indicators, one in SAS QI and one in WinQI, which is a Windows-based version. The software calculates the measures, output in numerators, denominators, and rates. As needs and refinements are identified, the program and technical specifications are updated and posted annually. Obviously, these are available from AHRQ free of cost to the users. Next slide, please.

We are very pleased to announce our version 2019 software release of SAS and WinQI, which were released on July 30th, 2019. Next slide, please.

I'm going to briefly talk about some of the updates that have been made to the version 2019 AHRQ QI software. This section will deal with the retirement of select AHRQ Quality Indicators. Next slide, please.

QIs have been a successful program with over a hundred measures that are maintained by the agency. As we all know, the proof of quality measurement is rapidly changing. Now, QIs are used for various

purposes such as a performance-based payment programs, public reporting, and other uses such as needs assessment, planning, research, and informing policy decisions. The adoption of QIs for different purposes present challenges in not only maintaining these indicators, but distinguishing evidence, supporting the measures' scientific acceptability for different uses, and recognizing when such evidence is lacking for a particular application. In this current context, where the purpose and methods of measurement continue to change rapidly, the goal of the agency and the QI program is to get to a smaller, yet parsimonious set of measures which can be used for quality improvement, and at the same time are sustainable from a resource perspective. This slide gives you the overview of the process that we undertook. So, how did we gather all the pertinent information? In partnership with AIR, from May 2017 to December 2018, AHRQ embarked on a process which included undertaking a number of activities to better understand how our indicators are used to support quality improvement initiatives. For our purpose, we used a broad definition of quality improvement that includes all manner of clinical practice or preventive service delivery. We did three steps. We did a systematic, yet rapid evidence review to update the information on the QIs. We documented and synthesized this evidence on the scientific acceptability of QIs. And then we convened an Expert Workgroup that used Modified Delphi to vote on each measure. The literature review that is shown in step one identified relevant literature pertaining to each of the QIs. The result was a database containing close to 500 full text articles that were reviewed. We also posted a Request for Information, an RFI, in the Federal Register Notice to relevant information on how stakeholders perceive the QIs in the context of quality improvement. We asked for their feedback on the facilitators, barriers, and improvements that could be made to the AHRQ Quality Indicators. Finally, the workgroup that we convened had experts of pertinent clinical and measurement expertise. All of the information generated from these different activities was used to inform the agency's internal planning and priority setting process. Next slide, please.

This slide briefly tells you the timeline for our expert workgroup activities. We started in January of 2018 and we concluded in September of 2018. The expert workgroup consisted of nine clinical quality measurement and quality improvement experts. We had a total of nine meetings that ran from January to September. As I mentioned, we used the Modified Delphi method and experts deliberated and discussed the evidence from the literature review and environmental scan on each Quality Indicator and then voted on the validity, reliability, and actionability of the QIs for quality improvement. Next slide, please.

For the agency's internal decision making process, we triangulated the information from the evidence scan, the literature review, and the RFI. We took information from the Modified Delphi panel where workgroup members provided recommendations on whether to retain measures as is, whether to retain measures as modifications, or to retire some of the indicators. We also used user feedback and evaluation as a part of our program delivery that is done where we conducted interviews and user

surveys. All of this information was used to select 21 Quality Indicators for retirement. Next slide, please.

Here is a list of retired indicators that will not appear and be supported in version 2019 of the QI software. There are three PQIs, eight IQIs, one PSI, and nine PDIs. Next slide, please.

The rationale for the retirement of these Quality Indicators can be bucketed in five domains. Limited evidence. The literature shows that there is not a lot of widely --there is not a lot of evidence for the use of Quality Indicators for quality improvement. So, some of the indicators had very limited evidence for quality improvement and those indicators were chosen for retirement. Then there was rarity of events. Some indicators measured events that were so rare that the measure was no longer reliable or relevant for quality improvement purposes. Advances in medical technology. There have been practice changes in terms of both where and how care is provided which affects the validity and reliability of these indicators. Next slide, please.

There were some indicators that required significant analytical work for refinement. And would have needed additional validation work or improvement of specifications for ICD-10 CM/PCS to remain useful for quality improvement. And, lastly, volume as a stand-alone measure were retired because they're not useful for quality improvement purposes. The evidence in the literature supported this and there was a wide consensus amongst the expert workgroup that volume indicators are not actionable as they are relative and have to be paired with information about hospital resources in order to determine if the volume is too high or too low for a given hospital. However, users interested in volume will be able to calculate this number from the mortality rate denominators. Overall, retiring the select AHRQ Quality Indicators will allow the agency to focus on new and high impact areas of healthcare quality improvement. Now I will hand it to over to Alex.

>>ALEX: Thank you, Mia. Next slide, please. So, we are very excited to release version 2019 of the software, and we'd like to highlight some of the updates and most notably for many users is the reintroduction of risk adjustment. This is the first time that risk adjustment is included in a version of the ICD-10-CM/PCS software, which from now on I'll refer to as an ICD-10 version of the software. And risk adjustment is enabled by the use of the 2016 HCUP State Inpatient Databases. In addition to the risk adjustment, though, there are other updates that are notable, some of which will be discussed later by Vivek, but most importantly we have updated the software to incorporate fiscal year 2019 coding. And, now, the software is compatible with fiscal year '16 through fiscal year '19 coding as long as it's ICD-10. And these coding changes will affect all the modules, this was not implemented in just the PSIs or IQIs, all users and all modules will have these coding changes in effect. Next slide, please.

In terms of the updates, there are a variety of reports and information available on the QI website to describing how version 2019 was modified or enhanced. And also, you'll get additional information, new information from version 2019 of the software that wasn't available in version 2018. For example, again, with risk adjustment there will be risk-adjusted rates. There are also updated signal variants, reference population rates, and composite weights that are all updated to account for the --not only the reference population, but all the methodology used under version 2019. And of course, if you want to get information on numerators, denominators of observed rates those are, of course, available via the

software, but there are also benchmark data tables, and so on, that we will point you to on later slides on the QI website. Next slide, please.

One very important feature are the population files being updated, as Mia mentioned, some of the area-level indicators were retired with this version, but the PQIs and select PDIs are specified at the area-level, and so the population file was updated now spanning years 2000 through 2018 that support a variety of population categories that you see here including age, gender, race, and so on. If you're curious about how the population file was created, we have a link below pointing you to a methodology document where you can learn more. Next slide, please.

And so now turning back to the main topic of this section which is risk adjustment, as we mentioned before we use an HCUP state inpatient database to build risk-adjustment models. Risk adjustment is critical for benchmarking in an internal evaluation. For any organization interested in looking at benchmark rates you can find them in these files. You'll find national-level observed rates, numerators and denominators for a variety of different categories, and that can be useful for your own internal benchmarking. Next slide, please.

But more detailed risk adjustment is what most users are interested in, and, so, as a reminder, the PSIs and IQIs are risk adjusted at the discharge level, and their models account for age, gender, clinical conditions, and other diagnostic categories. This is very similar, the structure of the models, and also the categories considered are very similar to prior risk-adjusted versions of the QI software. However, we did go through and reselect the predictors and risk adjusters that are used in the models, and, of course, then update the coefficients. And, whereas for the PQIs and the area-level PDIs our risk adjustment was also updated, but in this case, as a reminder, because the denominator is at the area-level, there's more limited risk adjustment primarily for age and gender, and now the software also supports an optional adjustment for poverty. Poverty is defined using a census poverty definition and you can find that information -- if you want to find out more information on that you can either look on the population file, I pointed to that methodology document before, but you can also learn more in our Empirical Methods document as well. Next slide, please.

Because it's been a while since riskadjusted rates have been in the software, we just want to remind users about how they should be used. Here we focus on an example of hospital performance, but a similar concept is transferrable to area-level indicators. So, as a reminder, a riskadjusted rate at its core is a comparison of the observed or actual performance of that hospital to its expected performance. And the risk adjustment, the expectation here is based on the experience of patients at all hospitals in the nation, and here the nation refers to the reference population adjusted to the hospital's case mix. And, so, the hospital -- one way, the most common and recommended comparison would be to take an individual hospital's risk adjusted rates, and in this case, then compare it to a benchmark, and account for uncertainty with confidence intervals, for example. Those confidence intervals are available through the software, but we want to remind you that risk-adjusted rates are not intended for comparing the performance of two hospitals, of hospital A and hospital B, that's a much more complicated comparison and given the amount of uncertainty around the estimates we do not recommend that. As well as we do not use it to sort of blankly rank the hospitals, again, because of uncertainty. It's not as simple as taking the lowest rate and determining that that might be the best, for example. So please focus on

comparisons to benchmark sand if you're interested in learning more, we have an Empirical Methods document that describes how the indicators were calculated and how to use uncertainty. Next slide, please.

One thing you may have noticed so far is that we haven't mentioned risk adjustment in the PDIs and unfortunately the PDIs are not risk adjusted in version 2019.For this particular module, the required predictors for risk adjustors were unavailable at the time of production. However, this is a feature that we hope to incorporate in future versions of the software, so stay-tuned. But in this case version 2019 does not support any risk adjustment of the PDIs. However, another important note is that while the PSIs and IQIs are risk adjusted, there are fewer options than were previously available. In the past the user could specify no age, no sex, or no age or no sex models. These were important if you were trying to produce stratified rates by age category or gender categories, but unfortunately this is not supported under this release. However, we will consider adding in that feature in future releases. And, lastly, something very important, this is the first time that we require the user to assign the major diagnostic category on their input file for risk adjustment. Given the complexity of how the MDC [Major Diagnostic Category] is assigned year after year, we highly recommend trying to use the MS-DRG Grouper or another source to try and assign a major diagnostic category. And there is information in the user instructions on how to apply MDC [Major Diagnostic Category], if needed. Next slide, please.

So, in summary, we implemented changes and introduced risk adjustment, but if you were to compare to the prior version there really were very few notable changes. And you can look into the Comparison Report to see how each indicator's observe rate changed between version 2018 and version 2019. PSI 12 and 13 had a slight increase and decrease, respectively, because the removal and increase of exclusions, respectively. And you can find more about what changed if you were to look at the log of changes released with the software. We also want to point out that PQI 14 and the prior release there were codes for short term complications related to diabetes included in the code to define the numerator for PQI 14, which is uncontrolled diabetes. So, if users who were using -- or calculating PQI14 in version 2018 might see a change in the number of numerator cases it should produce, and this is just because of duplicative codes not necessarily because of an enhancement or re-specification. But, as I mentioned, if you'd like to learn more about --and trying to assess how things change between versions we point you to the Comparison Report there. And, lastly, if you want to dig more into the risk adjustment models, what predictors are included, what are the important risk factors, and so on, we point you to the Parameter Estimates document. So, at this point I will turn it over Vivek. >>VIVEK: Next slide, please.

Thank you, Alex. So, in addition to the risk adjustment of data, we just discussed, both SAS QI and Win QI went through some usability updates, as well. For this we considered user's feedback that we received via technical support line. As an example, we added an updated code to the infection diagnosis name. And this impacts both PSI and PDI indicators. For example, the update will decrease the denominator for PSI 4 overall and stratum subsets, while it will increase the denominator for the rest of PSI 4 strata, such as pneumonia, shock, and hemorrhage. With our data we found that the magnitude of change was less than 1.5%, but the magnitude of change may vary for you when you use your data in version 2019.This update also impacts PSI 13 and PDI 10 where it decreases the denominator. This is just one example, we have made other improvements based on the feedback we received from various users. So, your feedback is valuable to us and helps us in improving the product. Please feel free to reach

out to QIsupport@ahrq.hhs.gov to provide your feedback on version 2019 or any other helpful feedback you may have on a product or version. Next.

Next, we will discuss some of the improvements and changes that were made to the SAS software. One of the improvements that you will find helpful is around renaming of the programs and control files. We consistently named output file names and labeled variables across modules. This includes cleaning up all the labels, using proper naming conventions, and adding labels where necessary. Just to mention a few, we have changed the SAS program's file name to change provider abbreviation such as PROV to hospital, which is now called HOSP. This is done to clearly indicate that the rates are for hospital and should not be confused with providers, such as physicians. We have also improved the labeling and comments around transfer related variables and exclusions. And also removed the transfer variables that are not used anymore in the program. We also added documentation on how AHRQ QI users, MS-DRG, and Alex mentioned that as well, I'm going to repeat this slide. We have had received quite a few inquiries around the use of pre-MDC [Major Diagnostic Category], MS-DRG, some of you on the call may have asked this question in the past. The documentation of this is added to the release notes under PSI, and PDI, SAS QI packages, and also on Win QI release note which is available within the software. One other significant improvement is around how have you been executing SAS QI programs. Prior to version 2019,you would execute the control that classified and then proceed to execute the rest of the SAS programs in the sequence adjusted, in the documents we have shared with you in the past. In version 2019 you can now set up all programs to execute building the control file instead of having to run all programs individually. We believe that this can reduce your burden running the SAS program, and we would love to get your feedback on this change. The instructions on how to execute the SAS program are also contained in the control file. Within each module, no changes are made to the WinQI execution process and it works exactly the same as the previous versions. Lastly, there are programming changes done to significantly reduce program runtimes for the PDI and PSI modules. We hope this will provide you an improved experience with running SAS QI programs in version 2019. Next, please.

Similar to SAS QI, there were changes made to the WinQI software as well. With version 2019 release, when you open your previously installed WinQI software such as version 2018 or version 7.0, the software will automatically identify that the new version is available and notify you of the updates for you to download and install. Alternatively, you can certainly download 2019 from the AHRQ QI website by going to the software page. We would like to acknowledge that with the risk adjustment function added back, running a large input file, you know, for example, three million rows and above can take a few hours to finish depending upon your machine configuration. So, we suggest you to use a robust machine or a server if you plan to run larger files. So, version 2019 WinQI comes in two flavors. There is with 3M limited license APR-DRG grouper and without. If you are using the with APR-DRG grouper version, while importing your data you will be presented with an option to either use a built-in 3M limited license APR-DRG grouper or use your own APR-DRG code in the input file, if you prefer. So, if you choose not to use the built-in APR-DRG grouper the software will expect you to provide the code in the input file. And not providing the APR-DRG code in this case, in your input file, will result in long waits. It's important that either you use the built-in or you provide the rates in your input file. Like, SAS QI, WinQI also includes observed expected, reference population, risk-adjusted rates for both hospitals and area indicators. And, lastly, we made improvements in the automation function. So, automation feature in WinQI allows you to quickly record your activities such as uploading input files with mapping and

crosswalk configuration, generate rates, and run reports with your preferred integration. Once recorded, the script can be saved in the software and run immediately or scheduled to run on a certain frequency. We learned in the past through our TA [technical assistance] bot that some WinQI users record their automation script using a smaller dataset as opposed to using a more robust all-inclusive dataset, and then save it in the software. This limited the data points provided to the automation script, because of this limitation running these scripts later on with larger datasets caused automation script to fail. This is because the saved script did not recognize the additional data points that may be included in the bigger dataset. So, we have fixed this issue by making the record and play feature a bit more broader that overrides specific configuration and adapts to run various different datasets with the same automation script that you had created with a smaller one. So, you can still choose to record your script with specificity as you did in the past, but this one is an option that we have added and it's available for you to use. Next slide, please.

So, the highlights of the changes. As we discussed, in version 2019 the software implements specification and programming changes across all modules. These are developed through detailed deliberation and assessment process with clinicians and expert coders. In the change log document for each module, which is now available on the website, the details are available for the specification changes. These links are provided on the slide as well for your reference. These documents list the changes, type of changes, description, and the rationale for the changes made in the software and indicators. Next.

So, in this slide here are some of the highlights of the changes made to the indicator. A list of the indicators that changed in this version are listed on the screen. So, PQIs in version 2019 remain unchanged mostly. For IQIs in IQI 9 and 11, for example, we did some usability improvement such as improved naming and labeling for IQI 9 strata. In IQI 17 we went through some fiscal year coding updates. We recoded IQI 33 logic directly into IQI all measure SAS program, which we have done differently in the past. In PSI 90, for example, we have updated risk adjustment specifications, signal variants, population rates, composite weight based on the 2016 [unintelligible] reference population. In PSI 4 we updated codes for infection and operating room procedures. Similarly, the fiscal year coding updates were done on PSI 2, 8, 9, 10, 11, 12, 13, and 15. For PDI we performed similarly on all measurements and then some fiscal year coding updates in PDI 8, 9, 10. So these are a few examples. For a comprehensive list you can certainly review the Change Log document mentioned on slide 30. Next.

So, for additional help and any specific questions the email to reach-out to us is on the screen: QIsupport@ahrq.hhs.gov. And you will be also able to access software documents such as a software inspection documents, release notes, population size documents, and others by going to the software page. The link for that is on the screen as well. So, that's all and I will hand it over to Diane.
>>DIANE: Well, thank you very much. As you know, we've covered quite a bit of information and we've had a number of excellent questions come in. One of the first questions that came in was simply a request to go back to the slide regarding the AHRQ QIs that were retired just to give a moment for people to be able to look at the slide. So, Mia, I don't know if you want to make any further comments about this, but we certainly wanted to be responsive to the request to just put this slide up just for a little bit longer because people wanted a chance to actually take a look at what's on the slide. Again,

these slides will be sent to everyone who is registered for this webinar and they will also be available on the AHRQ QI website.

So, with that, we'll go ahead and move to the next question. We'll start with a risk adjustment question and Alex this seems like a question that would be appropriate for you. What is the rationale that was used regarding the different DRG grouper for risk adjustment: MS-DRG for the IQIs and the AP-DRGs for the other QIs? >>ALEX: Yes, thank you, that's a great question. At the end of this I'll punt it over to Patrick Romano in case there is any color commentary to add. But from my understanding, the APR-DRGs offer a level of severity that helps with assessing the risk of mortality which is the outcome of the IQIs. And that is more important for the IQIs than let's say the PSIs where we're more concerned maybe with more what resources are used in the process of providing care, but Patrick, is there anything else you'd like to add? >>PATRICK: Yes, this is Patrick Romano. Can you hear me? >>DIANE: Yes, go ahead Patrick. >>PATRICK: Yes, I think Alex summarized it well, but the APR-DRG software provides a helpful tool both for fitting patients into APR-DRG categories and then applying the risk of mortality subclasses to really identify patients who are at "very low" to" very high" risk of mortality. That tool is geared specifically towards mortality as an outcome. For the PSIs because the outcome for almost all the PSIs is not mortality, but morbidity, we designed customized models that take into account characteristics of the patient that were present on admission to the hospital, including basically the reasons why they were admitted as well as demographic characteristics and co-morbidities. So, it's a little bit different purpose for mortality measures versus morbidity measures.

>>DIANE: Great, thank you. While we're on the subject, Alex, a question also came in. How do the changes impact feasibility to compare rates from prior years? >>ALEX: Yeah, that's another good question. There's sort of two ways to think about this. If you're using ICD-10 coded data and trying to compare within the ICD-10 time period of fiscal year 2016 to fiscal year 2019, as opposed to if you're trying to compare to ICD-9 data, so before fiscal year 2016. So, first of all, there was always a risk when using the Quality Indicator software because it's based on diagnosis and procedure coding conventions that those change fiscal year by fiscal year and that might impact the numerator, the denominator, risk adjusted rates, and so on. But if a user is using data and comparing within a data period that is within fiscal year '16 to fiscal year 2019 and they were to put all that data into version 2019, they could compare over time within that period and the major issue here again would just be coding changes over time, but the trends would be somewhat comparable and interpretable. Things get much more challenging when you look across versions of the software. So, for example, version 2018 versus 2019 in addition to coding changes, in addition to not having risk adjustment, the measure specifications change slightly, as I alluded to with some of those enhancements. And then looking even further back into 2019, here's where things become very tricky and hard to compare, especially at a risk adjusted level. The measured specifications look very different for a variety reasons, both because of enhancements that were made over time, but also it was not possible to perfectly translate the specifications under the ICD-9 world to the ICD 10 CM-PCS world. So, to summarize, if you are using that fiscal year '16 to '19 period that's the most interpretable comparison. If you're comparing across software versions it's possible, but you should be very careful about the interpretation and you can really only compare observed rates.

And, lastly, you should be very careful and we do not recommend comparing ICD-9 versions to the ICD-10 versions because there are so many moving pieces.

>>DIANE: Excellent, thank you. I'm going to switch gears here, although Alex there are a couple of more questions for you, but I'm going to switch gears to Vivek. There's a question: Is SAS still needed to run the APR-DRG grouper? >>VIVEK: Yes, that's a good question. And the short answer is yes or no. So, certainly you can use SAS to run APR-DRG grouper. If you are using SAS QI and you have SAS in your environment that makes sense to use the program that comes with the package, but APR-DRG is a DLO [Document Library Object]. You can use other programming language to pull the same DLO [Document Library Object]. For example, you can use C Sharp. And there is an example that's added to the package where it uses C Sharp for testing it, that's the second way. And the third way is you can use the built-in APR-DRG grouper that comes with WinQI to compute your code. So, SAS is not absolutely necessary to run it, but if you have it, you know we recommend you to use it.

>>DIANE: Okay, great. And then a follow-up, Vivek. Can the version 2019 software generate the observed numerator and denominator as output in SAS? >>VIVEK: Yes, it has been historically generating numerator and denominator as a SAS output, and this version also generates those, and those are generated as observed rates. So, there are different programs that will generate different rates, observed rates are generated by the hospital-level program that we have, and then that will produce you the numerator and the denominator. And then there is a separate program for risk adjustment that will give you the risk adjustment rates as well. >>DIANE: Great. So, continuing to mix it up, and again these are excellent questions coming in, thank you everybody. And if you have additional questions, we still have time, so please do add your questions in the question box and we will get those asked and answered.

So, a couple of questions for Mia. For retired QIs, is there somewhere where the reasoning behind which ones were selected, is that documented somewhere for people to see? >>MIA: Another good question, yes. We have a document that is on the QI website that goes into the rationale for retirement. We can send the link after this webinar to all the attendees. >>DIANE: Okay, great, thank you. And then our old friend PSI 90, so somebody had asked the question about are there –and this is for you, Mia. Are there plans to include PSI 90 in the future software releases? And if so, can you give some idea of timeframe? >>MIA: So, PSI 90 is currently included in the PSI module and we anticipate to continue producing PSI 90 for all payer populations.

>>DIANE: Excellent. Alright, thank you. Alex, we have a few more questions for you. So, could you expound on your explanation that you gave earlier, why is it not recommended to compare hospitals now that risk adjustment is available in the software? >>ALEX: Yes, so what we're recommending against is comparing one hospital versus another as opposed to one hospital versus a benchmark. The conceptual framework here is that there is a truer rate called the benchmark that has little to no uncertainty, and in statistical terms can be thought of as a parameter, and that's just a number. But a hospital's risk adjusted rate is an estimate, so they're subject to uncertainty. And, so, similar to hypothesis testing and statistics, you have an estimate, and you have a confidence interval in a frequentist setup or in a statistical setup, you can test is there a statistically significant difference between that benchmark and that hospital's rate? And this is something that people have been doing

with quality indicators for a long time and this is the basis of a lot of comparisons. However, when you then compare one hospital to another those are two estimates, both of those estimates have uncertainty, and that comparison is much more complicated. And so, we recommend the user taking those results directly out of the software to make that comparison because it's methodologically complicated. So, in short, it's all about the uncertainty around the estimate of a hospital's rate.

>>DIANE: Thank you. So, a follow-on, Alex. Another question that has come up for you in using the ICD-10-CM codes, is it sufficient to change out an old table with a new table? Will the new table be missing required codes or sets when compared to last year? >>ALEX: So, I admittedly am not quite sure what exactly the question is getting at, but I'll try to take my best guess here. But if the person who asked the question could clarify and if I get the table incorrect, I apologize. Please resubmit and we'll try and answer. So, I think the idea would be, I'm assuming that a table would be the set of outputs, maybe a hospital-level output or a national-level summary that comes out of the software. And the question is could you just replace what comes out of the software in the prior version with this version? And so, from just a structural perspective, it's not as simple as that because we have changed some of the variable names, as Vivek has mentioned. We tried to enhance some of the naming of the output files. So, if you had a program, and I'm just taking a guess here, someone is trying to auto-fill a file based on output from the software, while it's similar, there would be some changes to be made, but if they're referring to something else then please resubmit the question because I'm not sure if I've captured the intent. >>VIVEK: One quick addition to this, I was not sure if the question was specifically for SAS, but in WinQI as well, the table, the output kind of -- the columns remain the same, but if you are looking at the old table, comparing it with a new table, the tables are not different in WinQI. >>DIANE: Great, okay. Alex, you're the man of the hour here, here's another question for you. So, are PSIs risk adjusted based on co-morbidities that have a presence of admissions of either the value Y or W only? >>ALEX: That's a good question. And I'm actually going to pass it over to Patrick Romano for his first pass on this because he knows this in more detail. >>PATRICK: Yes. We follow the same conventions as CMS does so that if the condition is defined as yes, being present to admission or clinically undetermined then it counts as a co-morbidity.

>>DIANE: Okay, great, thank you for that clarification. So, here's a question for Vivek. Because risk adjustment is calculated based on national all-payer data, we can't report risk adjusted rates for Medicare fee for service only, is that correct? >>VIVEK: Yes, this is correct. You can certainly filter your data to only include Medicare patients and report observed rates, which will be same as, you know, if you have the fee for service software. So, the observed rates are fine, but risk adjustment will not be accurate because the coefficients are calculated based on all payer's data in the AHRQ version of the software which is version 2019. So, the answer is yes, it's not going to be accurate, but the observed rates will be accurate. >>DIANE: Okay, great, thank you. So, Mia, here's a question for you. What is the last version of the risk-adjusted software in which the retired AHRQ QIs will be available? >>MIA: That will be version 6.0. That was the last ICD-9 version that had all the indicators.

>>DIANE: Okay, great, thank you. Question for Vivek. Is the APR-DRG grouper an executable file? >>VIVEK: It's not an executable file, it's a DLL. So, yes, you cannot double click it and run, but you can use a program to kind of execute that DLL within it. Yeah, so it's not an executable. >>DIANE: Here's another question that's come in, I'm not quite sure who to pitch it to, so, Vivek let me know whether you're the

right person and if not, Alex, you're up. And the question is: What version should our encoders be on? >>VIVEK: Yes, this question is a bit confusing. Alex, can you think of -- Can you repeat the question? >>DIANE: What version should our encoders be on? That's what the question is. >>ALEX: I'll take my best guess and then hand it to Patrick. But I think if someone is in a quality improvement department in a hospital and they're looking to identify PSI events, Patient Safety Indicator events, for example, that have happened in their hospital, then we would recommend using version 2019. That would handle the most recent fiscal year of coding. Patrick, any other interpretation of the question? >>PATRICK: Yes, that's exactly right. You have to understand that only this version works optimally with fiscal 2019 data since October 1st of 2018. So, assuming that your coding and quality improvement staff are working in real time with recent data, they should transition immediately to this release, and I believe that some of the vendors, obviously, will be incorporating some of the technical specification tables as soon as they can in their own products.

>>DIANE: Great, thank you. So, Vivek, will you offer a walk through or some kind of YouTube demo? >>VIVEK: So, we have a YouTube demo available. It's for a prior version of WinQI as well as SAS QI, but for WinQI the user interface and the way the program functions haven't changed. So, you should be able to use the YouTube video to learn how to use the program, the software. We also have a software instruction document available for you to kind of go through and, you know, look at the details of, you know, what we are doing, why we are doing it. If you still need any further help, there's free technical support available for you. You can reach out to us and we can certainly help you out in answering your questions.

>>DIANE: Thank you. So, here's a more technical question. So, I'm assuming this would be for Alex or Patrick, potentially. For area-level indicators, how should one use the county-level covariant in risk adjustment? In addition, is the poverty variable a continuous or categorical variable? And when is it optional? >>ALEX: Okay, I will take this one first and then I'm going to hand it over to Eric Schone. So, first, the county-level variables are used to calculate expected rates for the area-level indicators. And I believe the poverty variable is categorical and it's always optional, but Eric Schone is there anything else you'd like to add to that? >>ERIC: Yeah, that's true. The poverty variable is categorical, it's taken from the distribution of people in poverty in the county from census data, and it's always optional. >>DIANE: Great, thank you. So, Vivek, do both the SAS QI and the WinQI output the same data files? >>VIVEK: They output the same data, but they don't output the same kind of format of the data file. So, there are differences in the way the columns are laid out in an output from a SAS QI program and WinQI has a different set of columns. But we can confirm that there is 100% match between the output from SAS and output from WinQI. They are both at the observed level and risk adjustment level. So, to answer your question, the data is the same, but the layout for the output files are different.

>>DIANE: Great, so there's one last question. Just given we're getting close to the top of the hour. And, Vivek, could you just confirm the retrospective start date for these changes, please? >>VIVEK: So, these changes are effective as of October 2018. So, you know, certainly both software, SAS and WinQI, are backward compatible. So, you can use prior year data to run the program and get your rates, but in terms of effective date, the effective date is October of 2018. And, yeah, I think, that's it. >>DIANE:

Great, 2018 .So, that wraps up our Q&A section. I do want to remind folks though that there are a number of resources available to you. So, if we go to the resources slide, please.

There is always the AHRQ QI technical assistance that's available to you in a couple of different formats. One is just always 24/7 available to you on the website, whether you go and look at the FAQs, and you see the link here to the FAQ support page, or you can always send an email to QIsupport@ahrq.hhs.gov and there is a wonderful team of folks who are ready and willing and able to answer your questions, whether it is a quick answer or to get on the phone with you, and work through any challenges that you might have. You will also find the AHRQ QI version 2019 software and documentation linked to the AHRQ website. And, again, for those of you who are looking at this saying I can't write these links down so quickly, these slides will be emailed to everyone who has registered for this webinar and will be available on the AHRQ QI website. So, with that let's go to our final slide. Move to the next slide, please.

So, just want to say thank you to everybody. Thank you to all of the speakers and the participants, but frankly mostly to all of you who have signed into this webinar, to all of you who work hard in improving the quality of care provided to patients throughout this country. The safety of individuals in your community as they need healthcare. And using the AHRQ QIs in order to provide the best care possible to the people in this country. So, thank you very much. If you have general questions and comments, again, you're certainly welcome to contact the AHRQ QI support team, and then go to the AHRQ QI website which is at www.qualityindicators.ahrq.gov. And with that, we'll wrap up the webinar and thank you, again, for all of you who have participated.