Hospital Value-Based Purchasing (VBP) Quality Reporting Program

Support Contractor

Hospital VBP Program: NHSN Mapping and Monitoring

Questions and Answers

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Question 1: Do you ever use admission source as a risk stratifier? It seems that would play a large role, especially if from a SNF.

Answer 1: I'd like to address that by saying that admission source and a lot of other variables are identified as very good risk stratifiers. However, admission source is a patient-level factor, and we would have to kind of evaluate each patient as they came into the unit to determine where they're being admitted from, and that creates a huge, huge surveillance burden for CLABSI and CAUTI, at least. For other HAIs, for example, surgical site infection, it's much easier to collect patient-level data because each patient is going in for surgery and you can collect the data that way. But for CLABSI and CAUTI, the way that denominator data is collected, it's through a survey of each unit, and patients are not individually addressed in the data collection. We are actually looking into using admission source as a risk stratifier for other HAIs, for example, Community-Onset MRSA and Lab ID – other Lab IDs. So we're definitely aware that it's a very good risk stratifier. However, we always try to balance good risk stratification with ease of

surveillance, also, and we don't want to put too much of a burden on RIPs and whoever is collecting the data in our hospitals.

Question 2: Why do these SIR reports give different values for expected rates? The calculation of pooled mean X device days over 1,000 is matching utilization ratio incident.

Answer 2: This calculation refers to calculating the expected number of HAIs for your individual unit, and so the number of device days here is the number of device days you observed in your unit. The pooled mean is the aggregate mean number of infections observed per 1,000 device days. When you multiply that number by the observed device days, you will get the number of expected infections for your specific unit.

Question 3: With facility self-reporting of infection, how do you or can you adjust for potential questionable reporting of results? Conversations between our ICP and others at surrounding facilities revealed that there are different interpretations of what should be reported for certain infections.

Answer 3: First of all, CMS does validate yearly. The other thing that you should recognize is that different infection preventionists are at different levels in their career. It is very, very important that you follow the surveillance definitions as defined by the CDC. These are not clinical definitions. These are surveillance definitions, and although they have changed over the years, as of 2015 and going forward, I believe the CDC's intent is to make these a little bit more stable so that – so their folks can kind of have these ingrained, but you have got to follow the surveillance definitions for each type of infection. They're not clinical. They're not physician driven. It's based on the infection preventionist and the surveillance definition provided from the CDC.

Question 4: How can we continue to use this old CAUTI data when the definitions have changed so dramatically?

Answer 4: Several of the definitions for the HAIs have changed in 2015. CAUTI is one of the bigger ones and that's why I want to point out that we are using 2015 data as the new baseline for future years. Once 2015 is complete, we will analyze the data. We will publish a report. We will try to create those risk adjustment stratification systems and models and then ideally, in late 2016, it's planned that those new SIRs will roll out. As far as using SIR currently with the new definition, we will be releasing in our NHSN December newsletter, some guidance on how to interpret those SIRs in light of those changes. For each facility it is going to be different depending on the types of CAUTI each facility is getting. It's hard to say which way it will change, but the guidance that will be

published in our December newsletter will give you a better idea of how to measure – how to create – and an expectation of how the SIR will change based on this new definition.

Question 5: Is the number expected shown in cases or days?

Answer 5: The number expected for the SIR is shown in cases. To calculate expected number, we're using the number of observed device days, multiplying it by our aggregate pooled mean, which is the rate in nationwide in those baseline years to get a predicted or expected number of infections, and the ratio you're seeing is the number of infections you observed divided by the number of infections or cases that are predicted based on those pooled mean.

Question 6: Can you go over how to get the pooled mean again?

Answer 6: The way we get our pooled mean is by aggregating data from all of the hospitals that are reporting to NHSN. So, first we'll aggregate the date. We'll stratify it by location type because they're different risk populations, and for each location type, let's say ICUs; we're going to take data from medical ICUs all over the country that are reporting to NHSN, and we were going to look at the rate in those ICUs. Basically the pooled mean is the aggregate rate.

Question 7: If you change the mapping on a unit, will the total device days be combined or changed after you change the mapping; same unit, different mapping for the years included in reporting?

Answer 7: Let's say you have one unit and the patient makes changes, and it needs to be mapped as another unit, those device days will not be combined if she's running aggregate reports for the entire year. If it changed in the middle of the year and the reason is going back to those risk populations, we don't want to combine device days for two different units because we won't be able to collect or calculate the accurate number of expected infections because the expected infections are calculated specific to unit type. So, getting a little bit more technical; in NHSN, when you observed that a patient makes those changes in a unit, what we recommend is that you create another location within NHSN for the same unit but to a different mapping, and that way those different mappings can be kept separate and can be adjusted. However, even though you can't calculate rates for those combined periods, you can calculate a SIR because you can calculate the expected number for one mapping, then you can calculate the expected number for another mapping, add those up and put the total number of observed infections at the top. And so when you calculate an SIR, you can combine many different unit types and you can, if a unit has changed, get a SIR

for a period of time, even if there are two different mappings, but you cannot get a rate.

Question 8: Where can I find the Baseline data so that I can calculate my Expected events?

Answer 8: One thing you can do is go to the NHSN website. It is www.cec.gov/nhsn, or you can follow the link that I copied into my presentation and you can look under *Annual Reports*. If you're looking for the most recent ones, (They are broken down by year.) you can see that the 2015/2014 reports are not published yet. The 2013 report is the last published rate report. The rate reports go all the way back to the baseline years: for the SIRs, and CLABSI 2006 to 2008; and 2009 for CAUTI. So, if you'd like to calculate the expected values to calculate your own SIRs, you would use those rate reports and those are all available on our website.

Question 9: Both of you mentioned the NHSN Baseline (or the NHSN aggregate data). Mr. Parikh mentioned that the baseline for CAUTI is 2009 data published in 2011 and 2006-2008 published in 2009 for CLABSI. I have a document that I downloaded from the NHSN website that says that the NHSN aggregate data was from 2013 data published in 2015. Can you help me to understand what might be the reason for this discrepancy?

Answer 9: So what I was referring to while I was talking about the baseline aggregate data from 2009 and 2006 through 2008 was regarding the aggregate data used in calculating the SIRs. NHSN actually creates annual reports of aggregated data. Those are reports of rates every single year, and the most recent one published is our 2013 annual rate report. You can find that on our NHSN website under *Annual Report*. If you go to the link at the back of my slides, you can find those reports. But there is a difference between those yearly rate reports and the reports used for the SIR. We have to keep the SIR data constant for a period of time because if we keep changing the SIR year to year, it's hard to compare or measure improvement over a certain period of time and that's kind of what the HHS action plan was getting at, was trying to measure improvement from this baseline year. Now, in 2015, we're creating a new baseline, so our 2015 annual rate report will also be used as a baseline aggregate report for SIRs starting probably in 2017 or once the modeling and the announcements have been finished on those 2015 data.

Question 10: Back in 2012 NHSN published a report with infection ratios and utilization ratios percentiles for CAUTI and CLABSI based on the unit type. That was great for benchmark and goal setting purposes. Is there a more recent source that we could use for benchmarking against other institutions?

Answer 10: Yes, that's a great question. The NHSN publishes the state data. I believe it's close to yearly. And you know one of the things that we talked about with HAI is

you should always benchmark to zero. When you talk about the hospitals, if you're going to benchmark to the 50% of mean and 25% of mean, benchmark to zero. The point that I think I was making with the Value-Based Purchasing as a hospital-acquired condition is there were specific thresholds that you would need to meet in order to achieve and secure your funding.

Question 11: Can you give a simple explanation to give physicians to explain the benchmark being 0.00000? They look at that and say, that's impossible.

Answer 11: Our most successful facilities benchmark to zero. With infections it's best to aim low (benchmark to zero).

Question 12: Who specifically in the organization receives the HSAG CAUTI Data Feedback Reports?

Answer 12: With CMS our contract began August 1, 2014. I worked in Florida, and we recruited hospitals on a voluntary basis that would work with us on achieving decreases in CAUTI, CLABSI, C. *diff*. and also collecting data for ventilator-associate events (VAE). So, what we did is we sent recruitment packets out throughout Florida and we requested hospitals join this project. For those hospitals that signed the Conditions of Participation (which required a signature form a C suite member along with a board member to participate) we gained NHSN access for their data. We then go out quarterly and provide the hospitals with that data. So, it's the participating hospitals for this particular project.

Question 13: Could you please share the link to the source that could be used for benchmarking/national percentiles or something along those lines?

Answer 13: What we did, as I mentioned before, we benchmark to zero. When you go to the Targeted Assessment for Prevention report, which is in the NHSN under TAP Report, I think it's the third or fourth folder from the bottom; you can actually use the Health and Human Services 2013 goal. For that particular threshold, for CLABSI it is 0.5; for CAUTI, it is 0.75; and for C. *diff.*, it is 0.70. So, those would be the thresholds that we used based on the Health and Human Services 2013 goal.

Question 14: So is the current NHSN aggregate data from 2013 for both CLABSI and CAUTI, or is it as Mr. Parikh described?

Answer 14: The aggregate data is calculated yearly. The NHSN Annual Reports found on our website reflect what those aggregate rates are each year. However, the baseline periods that I mentioned from 2006, 2008, and 2009, are the years where we used the aggregate data for the SIRs. Those are the rates (pooled means) that we use to calculate our expected values. Now, the reports after that can be used and are used by many hospitals as benchmarking for rates per specific unit. So, if you have an ICU, you can calculate a SIR from it and the SIR, in a sense, will be a ratio measure comparing your unit's current performance to what would be predicted if the rates were the same as in 2006-2008 (for CLABSI). You can also compare your unit's rates instead of the number of infections to last year's aggregate rate. There's no metric there for comparison. There's no SIR being calculated there but you can just compare the rates statistically and qualitatively. Those are the two basic functions of our annual report.

CDC uses the baseline to calculate their predicted number of infections as Rishi has described. CMS also uses a separate baseline period to calculate Improvement Points. This is done for every measure within the Hospital Value-Based Purchasing Program. So, as Rick has also mentioned, the baseline period I believe, we're talking about is 2013 for fiscal year '17. So, fiscal year '17 uses the performance period as calendar year '15 and a baseline period of calendar year 2013. We compared the baseline period to the performance period to calculate Improvement Points.

Question 15: What does the CAD mean again?

Answer 15: It stands for the Cumulative Attributable Difference and is the excess of the set in SIR threshold, utilizing the Health and Human Service Goal of 2013 which is a SIR 0.5. So, the CAD, a positive number is the number of excess infections above that SIR threshold you are and a negative number are is the number under that particular CAD threshold. So, if you have a CAD of 3, then you would be three infections over having an SIR of 0.5. Note that The CAD is the number of infections above or below an SIR threshold. A positive number indicates more infections than predicted (excess) and a negative number indicates fewer infections than predicted.

Question 16: The benchmark number comes from CMS. So you are saying the top percentile of hospitals in the nation are at 0?

Answer 16: CMS calculates the performance standard which includes the benchmark and the achievement threshold for all measures within the hospital Value-Based Purchasing Program. The benchmark is the mean of the top decile or the mean of the top 10%, and yes, the mean of the top 10% have zero, which also means that they have zero infections.

Question 17: How do you run these reports?

Answer 17: The TAP Reports are currently in the NHSN. Go to the Analysis section and choose Output Options from the drop down. The TAP reports folder is the fourth from the bottom. Click on that folder and choose the Acute Care Hospitals (ACHs). You may build a Custom Output report or select the CDC Defined Output report

Question 18: Some hospitals have stem cell transplant programs which can have a higher rate of CLABSI due to the profound neutropenia of the patient population. How is this going to be risk adjusted? Compare these units to each other?

Answer 18: There is an NHSN location for Hemopoietic Stem Cell Transplant Unit, and this unit has its own pooled mean in our rate reports. I'm not entirely sure if that unit was included in our 2006 baseline period for the SIR. However, it is included in more recent rate reports and will be included for our 2015 re-baselining for new SIRs in the future.

Question 19: Will TAP reports for SSIs and LabID FACWIDEIN-MRSA be added? When?

Answer 19: You know the TAP Reports as they exist currently for CAUTI and CLABSI. Here you can rank units because these are SSI. For the CDI, we are able to use a TAP Report and rank hospital systems that we work with but we cannot rank the individual units because it is a facility-wide metric.

Question 20: How do you map a unit that fluctuates between patient mix (e.g., med/surg adults and med/surg pediatric). At times we can have a mix of adults and pediatric or all adults and all pediatrics. There is no predictability to this mix. There is not a 20/80 or 50/50 mix.

Answer 20: I can only tell you the actual location description of a mix acuity unit which is a hospital area for the evaluation and treatment of adult patients whose conditions are varying levels of acuity: critical care; ward-level care; step-down care; et cetera. Such a care error may imply the patient was followed by different hospital services, including: coronary, medical, surgical. This care may or may not include acuity adaptable universal beds.

This model of patient care allows the patient to stay in the same bed during all phases of care from critical care to lower levels of care. I think we get that a lot with the acuity mix and mapping. We get a lot of questions in Florida because they have a snowbird effect down here where census is up during the winter months and then it decreases when the folks return north, so units open and close as a routine matter. I think the best advice is just look at the location mapping guidelines. Look at the location description and do the best you can to follow it.

One thing to add, the locations manual that I've posted in resources has a very detailed guide on how to conduct location mapping. But to provide a quick answer to that question: if a unit is changing a lot in the period of time, what we recommend is to take a three month period and look at the different distributions of patient service types and acuity levels in that three month period and use that distribution to determine your location.

So, for example, if you have a three-month period and a little bit of it is ICU but most of it is ward-level patients, then you can classify as a ward-level unit, and from there on you would go onto service type. So, if half of those were medical ward-level patients and half of those are surgical ward-level patients, it would be a medical surgical ward, and even though the patients have those changing month to month, you can, with a three-month period, get an idea of what this location is mostly used for. That's what we try to get out of our location mapping.

Question 21: Where do you find the Expected National Baseline data?

Answer 21: You can find all the aggregate data for the SIRs through the links on this page: http://www.cdc.gov/nhsn/pdfs/sir/ratessirs-reference_jan2014.pdf. The most recent annual rate reports can be found at: http://www.cdc.gov/nhsn/datastat/index.html.

Question 22: How can you calculate the expected number of CAUTIs based on the historical data if there is a new definition for CAUTI starting with January 2015?

Answer 22: 2015 will be the data source for the new NHSN baseline for the SIRs, which will be implemented in late 2016. Until then, keep an eye out for our December newsletter. In it will be some guidance on how to interpret CAUTI SIRs with the definitions change. If you do not receive NHSN emails, our newsletters can be found at: http://www.cdc.gov/nhsn/newsletters/index.html.

Question 23: On slide 16, this burn unit is an ICU, or are you calculating a pooled mean for all units, despite ICU status?

Answer 23: The pooled mean on this slide is the pooled mean for all Burn ICUs only.

Question 24: Does it mean that we shouldn't use the infection ratio (number of infection s/1,000 Cather days) as a measure for HAI performance but SIR instead?

Answer 24: The decision as to what summary measure to utilize is up to the facilities or corporate entities. I believe the example that you are using is for an incident rate which is calculated as follows: number of infections/number of catheter days*1000. The SIR concept and calculation is completely based on the underlying rate data that exist across a potentially large group of strata. Thus the

SIR provides a single metric for performing comparisons rather than attempting to perform multiple comparisons across many strata which make the task cumbersome.

To look at this information, run a line list of your SSI in NHSN for the period you wish to view. Compare this with the infection count you see included in the CMS SIR for SSI. If it is the same, then all of your SSI are included in the SIR and you can view the patient-level variables in the line list by modifying the variables to display in the line list output. If it is different, then you can run a procedure line list, with the model exclusion criteria applied for the same time period, to determine which procedures linked to SSI were excluded from the CMS SIR. This may sound a bit complicated at first, but is more straightforward when done in NHSN. If you have any questions about NHSN analysis, please feel free to email nhsn@cdc.gov.

Question 25: How will these baseline and performance measure dates relate to other VBP dates?

Answer 25: The Centers for Medicare & Medicaid Services (CMS) proposed and finalized the policy to use the current standard population data also known as the older baseline data to calculate the hospital results from both the baseline and performance period in addition to the performance standards in FY 2017 and FY 2018. The new standard population data will be used starting in the FY 2019 Hospital VBP Program.

Question 26: Does it follow current algebraic practice?

Answer 26: Please submit your full question to the Inpatient Q&A tool on *QualityNet*.

Question 27: I understand that the CDC is resetting the baseline period to 2015 to calculate the number of predicted infections and thus, SIR. How will this affect the currently published thresholds for VBP?

Answer 27: CMS proposed and finalized the policy to use the current standard population data, also known as the older baseline data, to calculate the hospital results from both the baseline and performance period in addition to the performance standards in FY 2017 and FY 2018. The new standard population data will be used starting in the FY 2019 Hospital VBP Program.

Question 28: Is the threshold change based on the new updated benchmark period?

Answer 28: CMS proposed and finalized the policy to use the current standard population data, also known as the older baseline data, to calculate the hospital results from both the baseline and performance period in addition to the performance standards

in FY 2017 and FY 2018. The new standard population data will be used starting in the FY 2019 Hospital VBP Program.

Question 29: Do all patients on a particular unit have to be mapped to the same unit, or can it vary by the nature of each case, e.g., the neuro cases you describe map to neuro, but others on same unit map elsewhere?

Answer 29: Usually, yes, all patients in a unit must be mapped to the same unit. However, there is an exception when considering virtual locations. Virtual locations are created in NHSN when a facility is unable to meet the 80% rule for location designation in a single physical unit but would like to report their NHSN surveillance data for each of the major, specific patient types in that unit. For guidance and instructions on mapping virtual locations, please see our locations manual at: http://www.cdc.gov/nhsn/pdfs/pscmanual/15locationsdescriptions_current.pdf.

Question 30: Can you address how internal changes in unit designation should be handled?

Answer 30: If you believe that the CDC Location Description assigned to your existing location is incorrect, there are additional steps you will need to follow, depending on the scenario:

Scenario 1: The patient population in this unit has changed such that the current CDC Location Description, using the 80% rule, is inaccurate.

Solution: Because the patient population has changed, a new location should be created in NHSN and should be mapped to a CDC Location Description that most accurately reflects the type of patients receiving care in that location, using the 80% rule. The old location should be put into "Inactive" status. When creating a new location, you will need to use a different "Your Code" and "Your Label" value. Note that data which have been reported from inactive locations can continue to be analyzed within NHSN, however these locations will not be linked to new, active locations.

Scenario 2: The CDC Location Description initially assigned has been inaccurate for much, if not all, of the reporting to NHSN, based on the updated location guidance for 2015.

Solution: Users cannot change the CDC Location Description on existing locations within NHSN. Facilities should ensure that the locations set-up in NHSN are accurate for 2015 reporting per the updated guidance. If a new CDC Location Description is needed, users must create a new location in NHSN and inactivate the old location, per the instructions above. Note that data for the old location can still be analyzed, but these data will not be connected to data reported

under the new location. To connect data to the new location, facility administrators must edit the older location event and summary records to the newly created locations. This **must** be done before the old location is put into "Inactive" status. Once the new location is active, facilities need to change their monthly reporting plan to record the change and capture the new location data.

Question 31: Where can the facility assessment tools be found?

Answer 31: The CAUTI facility assessment can be found at: http://www.cdc.gov/hai/prevent/tap.html.

Question 32: Is there a CLABSI Initial Facility Assessment Tool available on line?

Answer 32: The CDI facility assessment is currently being piloted.

Question 33: Who provides the results of the CAUTI assessment tool to the facilities?

Answer 33: For our Florida facilities, HSAG provides the results of the CAUTI Facility Assessment Tool.

Question 34: Where can we get a copy of the CAUTI Initial Facility Assessment Tool in the second presenter's slides?

Answer 34: The CAUTI facility assessment can be found at: http://www.cdc.gov/hai/prevent/tap.html

Question 35: I do not know if this is the best forum to ask, but I wonder if and what is being done to address the change in definitions that occurred this year. This change, which makes the SIR appear artificially low (in regards to CAUTIs) or high (with CLABSI), is a good measure of "truer" risk assessment?

Answer 35: Please submit your full question to the Inpatient Q&A tool on *QualityNet* so we can address your question in regard to a specific change.

Question 36: Can you run the TAP reports for one year at a time in NHSN?

Answer 36: Yes.

Question 37: What's the minimum denominator to generate a TAP?

Answer 37: Unlike the Standardized Infection Ration (SIR), there is no minimum denominator to run the TAP.

Question 38: Does this allow critical access hospitals to use the CAD and TAP? Are SIRs available to critical access hospitals?

Answer 38: Yes, SIRs are available to critical access hospitals, as are TAP reports.

Question 39: I work at an Inpatient Rehabilitation facility. We have a large number of Spinal Cord patients. We use a larger number of indwelling urinary catheters on this unit. Our overall TAP report CAD is -8.31 and our Spinal Cord unit is -2.35. Can you please explain the negative value?

Answer 39: The CAD of -8.31 indicates the number of infections below the threshold SIR utilized to run the TAP report. A CAD of -2.35 also indicates that this unit is 2.35 infections below the targeted SIR.

Question 40: How can we get the patient details of the SSI reported to CMS?

Answer 40: To look at this information, run a line list of your SSI in NHSN for the period you wish to view. Compare this with the infection count you see included in the CMS SIR for SSI. If it is the same, then all of your SSI are included in the SIR and you can view the patient-level variables in the line list by modifying the variables to display in the line list output. If it is different, then you can run a procedure line list, with the model exclusion criteria applied for the same time period, to determine which procedures linked to SSI were excluded from the CMS SIR. This may sound a bit complicated at first, but is more straightforward when done in NHSN. If you have any questions about NHSN analysis, please feel free to email nhsn@cdc.gov.

Question 41: We currently swab all patients admitted to our hospital that come from a group setting such as a nursing home for MRSA. Is this a practice we should continue? One of our local nursing homes would like us to discontinue this practice.

Answer 41: This screening practice is widely used by hospitals to identify the patient who is a 'risk' toward spreading MRSA to others, i.e., used to identify patients who require isolation. It is considered a 'best practice' for facilities, but it is not a specific NHSN recommendation. For guidelines on MRSA prevention, please see:
http://www.cdc.gov/hicpac/mdro/mdro_0.html
http://www.cdc.gov/hicpac/2007IP/2007isolationPrecautions.html.

Question 42: When will NHSN provide new benchmark data for SSI?

Answer 42: Because NHSN uses a multivariable risk-adjustment model for SSI instead of stratification, it is difficult to produce benchmark rates for SSI. Therefore, the SIR is the primary benchmarking metric we recommend for SSI, as it will be updated along with all other SIRs in late 2016, using 2015 data as the new baseline. We

are currently working on an option in the statistics calculator to calculate SSI rates using the risk-adjustment model; the release is to be announced.

Question 43: Is it true that starting with calendar year 2016, MBI-LCBIs will be removed from the CLABSI SIR calculation? Since the CLABSI SIR is not granular down to the patient level – how will these infections be removed from the CLABSI SIR calculation?

Answer 43: MBI-LCBIs will be excluded from the CLABSI SIR numerator in the new SIR baseline risk-adjustment (using 2015 data), which is expected to be implemented in late 2016. These infections will simply be excluded from the number of observed infections in the SIR.

Question 44: Should unit mapping be done once a year or as they may change?

Answer 44: Location mapping should be done as soon as locations change in your facility.

Question 45: Could HSAG share their HAI reports shared with recruited hospitals?

Answer 45: Yes.

Question 46: Do publicly-reported SIRs combine all types of wards and/or ICUs, For example, surgical ICU with the Medical ICU and also forwards?

Answer 46: Yes, publicly reported SIRs on the CMS *Hospital Compare* website include all locations. This can be done because the SIR incorporates the differences in the expected number of infections between different types of locations. For a list of all types of wards and ICUs included in the CMS SIRs, please see this reference document of CMS reporting requirements: http://www.cdc.gov/nhsn/pdfs/cms/cms-reporting-requirements.pdf.

Question 47: Does CMS take into consideration hospitals with lower denominator data that may affect their SIR rate? Will scores be adjusted if the national baselines score increases?

Answer 47: CMS does not calculate a measure score when the performance period SIR cannot be calculated because the predicted number of infections (denominator) is less than 1.000. CMS calculates the performance standards for each fiscal year based on the population of data from the baseline period. The benchmark is the mean of the top decile and the achievement threshold is the median. The performance standards may fluctuate from fiscal year to fiscal year based on the aggregated hospital performance during the baseline period.

Question 48: Did HSAG create the report on slide 30 since it appears to be a TAP report and a rate table?

Answer 48: Slide #30 is a SIR report comparing calendar year 2012 with calendar year 2013.

Question 49: Where would I find the baseline SIRs?

Answer 49: Your hospital's baseline period SIR for a fiscal year is located on your hospital's Percentage Payment Summary Report and Baseline Measures Report available through the *QualityNet Secure Portal*.

Question 50: Is there any way you could write out the explanation about baseline data that was just provided by the female speaker?

Answer 50: There are two types of baseline data being referenced on this call. The baseline data term that has been used by CDC is in reference to the standard population data used to calculate the predicted number of infections that is used in calculating the SIR values. The baseline data term that is used by CMS for the Hospital VBP Program is in reference to the baseline period that is used to calculate improvement points. In the Hospital VBP Program, a hospital has an opportunity to receive improvement and achievement points. Improvement points are calculated by comparing a hospital's performance period SIR to a time period that was collected prior known as the baseline period.

Question 51: How is the CAD more useful than ranking units by SIR and prioritizing that way? It seems to just add another layer of complexity to performance calculations.

Answer 51: I believe the CAD is more simplistic and easier to explain to senior leadership. It is the number of infections above or below a threshold.

Question 52: On slide 28 is the threshold column a SIR?

Answer 52: Yes.

Question 53: What do I need to do to see my SIR, and also to see if I am improving from last calendar year to present?

Answer 53: Your hospital's VBP Program SIRs for a fiscal year are located on your hospital's Percentage Payment Summary Report and Baseline Measures Report available through the *QualityNet Secure Portal*. You may compare your SIRs from the baseline period to the performance period or from fiscal year to fiscal year to gauge your improvement at an aggregated level. However, to view improvement in a mapped location, we recommend utilizing the process presented by Rick Welsh during today's presentation.

Question 54: Do you use regular epidemiological measures such as Odds Ratio, Relative Risk and Prevalence Rate in CLABSI or CAUTI?

Answer 54: No, we do not. NHSN is a surveillance system that publishes descriptive epidemiological data. The odds ratio and relative risk are analytical measures that do not apply for our data. Rather than prevalence, we report the incidence rate for CLABSI and CAUTI. These are the pooled means we report in our annual rate reports. However, we recently conducted a point prevalence survey of HAIs across the nation, which can viewed at: http://www.cdc.gov/media/dpk/2014/docs/hai/Multistate-Point-Prevalence.pdf.

Another epidemiological measure is the Standardized Infection Ratio (SIR) which is similar to the Standardized Mortality Ratio (SMR) used in many epidemiologic studies. It is a form of indirect adjustment that compares observed to predicted infections.

Question 55: What sources have been used to help IPs determine how a unit should be mapped? We may call a unit "neuro" but trying to find an objective measure of 80%, for example, is difficult.

Answer 55: You may utilize the CDC Instructions for Mapping Patient Care Locations in the NHSN. CDC recommends using three months of admissions diagnosis data to determine the mapping of a unit. If over a period of three months, approximately 80% of the patients are of the same service type (e.g., neuro), then the unit should be mapped as such. You can also use patient days or device days instead of admissions for the 80% rule. However, the metric you choose must remain consistent throughout your facility. For further guidance on location mapping, please see: http://www.cdc.gov/nhsn/pdfs/pscmanual/15locationsdescriptions_current.pdf.