



Inpatient Quality Reporting Program

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PCHQR: Maximizing Your NHSN Reporting and Data Experience

Presentation Transcript

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Operator: This is Conference #: 17030884.

Matt McDonough: Good afternoon everybody, and thank you for joining us for today's PCHQR webinar on *Maximizing Your NHSN Reporting and Data Experience*.

My name is Matthew McDonough and I'm going to be your virtual training host for today's event.

And before we start with our first presenter today, I'd like to cover some housekeeping items with you so that you know how today's event is going to work and how you can submit questions to our panelist throughout the course of today's event.

As you can see from the bullets on your screen, audio for this event is available via Internet streaming, and if you're hearing my voice, you already know that. That means that no telephone line is required, but you do need to have computer speakers or headphones connected in order to hear the audio that will be streaming over the Internet today.

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Now if you are hearing audio at this point but you are having audio issues at any time during today's event, please send us a chat message and we will go ahead and work with you in our chat window to resolve those issues.

Now just because we're streaming audio, it is a one way communication method. But that does not mean that you cannot submit questions to our panelist today. You'll notice on the left side of your screen there's a chat panel that takes up about a quarter of the screen on the left. That is how you'll interact with our presenters today, and you can send in questions at any time to our team today and have those questions received and answered as time and resources allow. Now to do that, at the bottom of your screen you'll see a chat with presenter box. You'll simply type your question into that box and click the "Send" button located to the right of that box. When you do submit your question, all of our presenters online today will see them. And again, as time and resources allow, we'll answer questions. But your questions are being collected in the archive.

That's going to do it from my introduction. So, without further ado, I'm going to hand this over to Lynn Jones, [and] we'll get it started today. Lynn?

Lynn Jones:

Thank you Matthew, and welcome. We are very excited today to have one of the experts on *Maximizing Your NHSN Reporting and Data Experience*. Again, our presentation is focused on our PCHQR [PPS-Exempt Cancer Hospitals Quality Reporting] for – to support participating hospital members. A lot of our questions will be – the information will be directed specifically to the cancer-exempt hospitals. So please, keep your questions in line with that.

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And with that comment, I'd like to introduce a lady that I have a great deal of respect for, Maggie Dudeck. She has her CPH and MPH. She's also one of the first in the U.S. who have received the Certification in Public Health by the American Schools of Public Health. She is an epidemiologist for the National Healthcare Safety Network [NHSN] Methods and Analytics Team in the Division of Health Quality Promotion at the Centers for Disease Control and Prevention [CDC].

Maggie began her career with the CDC in 2003 working as a graduate student with the Division of Healthcare Quality Promotion on the National Nosocomial Infections Surveillance System and eventually with the NHSN. She currently has a central role in NHSN data cleaning and Healthcare Associated Infections. She provides direct (use of) support and documentation with the focus on analysis and interpretation of data and has served as the lead coauthor or author on several national-level HAI annual reports. She provides subject matter expertise to NHSN development and analysis activities, to interagency working groups, and provides training to various groups around the country. Maggie earned her Bachelor of Science degree from Northern Illinois University and her Masters of Public Health and Epidemiology from Emory University. And it is a pleasure to welcome Maggie to our presentation today. Maggie?

Maggie Dudeck:

Thank you, Lynn, and thank you everybody for joining the webinar today. It is a pleasure for me to be able to present you all on not just the steps for making sure data have been reported and are complete for CMS's PCHQR program, but also for using NHSN and expanding beyond some of the CMS reporting requirements.

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So today we will discuss the use of NHSN in the PCHQR program, and also identify the steps to improve data entry and submissions. We will review some troubleshooting tips and ways to validate your data completeness and submission for your hospital. And I'll also touch a little bit on some best practices for HAI data tracking as part of any ongoing quality initiatives.

These are the acronyms that we will be using today and their full descriptions. Of course in public health and then CDC and I guess with the government, there's always a bunch of acronyms. So it is listed here to help you through some that we will be using today. [Please see slide number five of the presentation slides for the list of acronyms.]

So let's start out by talking about this relationship between NHSN and CMS. NHSN is really a vehicle that can be used to fulfill those reporting requirements for some of the measures required as part of [the] Centers for Medicare and Medicaid Services Quality Reporting Program. But it is also a vehicle that has been used by State Health Departments in order to fulfill mandates in the reporting of healthcare-associated infections. And of course beyond that, and the original intent of NHSN and the predecessor system of the National Nosocomial Infections Surveillance System, is that it can be used by hospitals and healthcare facilities to voluntarily report HAI data that are of interest to the hospital or perhaps a special study group or initiative or perhaps the corporate level of a healthcare system.

What are the benefits of using NHSN and why NHSN has been chosen as the HAI surveillance program by State Health Departments and CMS and other organizations is that it provides standard surveillance protocols that can be used to help identify healthcare-associated infections and eligible

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denominator data. And also, of course, [it] is an application and an online tool for not only reporting these data but also connects to a database that can be used to store those data and can be used to analyze those data.

All data that are entered into NHSN can be analyzed. They can be analyzed by an individual at the hospital at any time. There is no lag time in analyzing the data. They can also be analyzed by groups such as State Health Departments or a corporate level or a special study group, and this analysis uses the standardized protocols and some national risk-adjusted measures, and can allow hospitals to compare themselves to the national data.

So there are some caveats in using NHSN for the CMS reporting requirements, and that is, of course, data must be collected and reported according to the NHSN protocols. There are many surveillance protocols in place that go beyond even just what is a CLABSI or what is an SSI. It actually goes on into the methods of how to define a unit within a hospital; how to collect denominator data. I think one of the most important things to remember here is that, only In-Plan data – and I'll explain to you what that means – but only In-Plan data that are also complete are able to be shared with CMS.

And so this really gets into the agreements that we have with hospitals when they enroll at NHSN. They sign an agreement to participate and consent that basically tells the hospital how CDC will plan to use and share their data, and we are not allowed to share data with everyone. In fact, there are special protections in there for the hospitals. But there is a statement in there that allows us to share data with CMS according to the rules, and we are only allowed to share In-Plan data that fall within those rules.

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My recommendation to hospitals when they use NHSN is to develop a routine schedule as to when the hospital is going to enter and analyze data in NHSN. The surveillance itself should be ongoing as it is a prospective method of surveillance. However, more than likely your hospital is not going to enter an event the second it identifies it, right? So develop a time and schedule, whether that be every week, every couple of weeks, every month, where you will regularly enter and analyze the data. That analysis part is very important so that you can ensure that data are consistent and that they're accurate on an ongoing basis rather than waiting at the 11th hour.

A checklist can be incredibly helpful to ensure that the data are complete for each measure required, and so that's how much of our presentation today will be formatted. We're going to be looking at this as if it's a checklist, and it will be a checklist that will help you see when you know your data are complete or all the steps needed to make sure your hospitals data are complete.

So here is an example of our monthly checklist and what we'll be going through today. Again, this is all focused on the PCHQR reporting requirement. So if your hospital voluntarily reports other types of data or you report for a state mandate, then you know, you could use this kind [of] as a template and then update it to include the information that is specific to your hospital.

The first thing to check, as it relates to reporting for CMS purposes, is to confirm and update, if necessary is the CCN or the CMS Certification Number that is in NHSN for your hospital. Now, to be honest, this step does not have to be done every single month. But you do want to make sure that it is done before a quarterly deadline, because if CDC or NHSN does not

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have the correct CCN for your hospital, then we can't submit data to CMS for your hospital because we don't have the right information.

Your hospital's CCN applies to all CMS-related reporting in NHSN, so it really is important to double and triple check this number. Changes to a CCN have to be completed by an administrative user. Often times this is referred to as the Facility Administrator. And this can be done by going to the "Facility" option within NHSN and going to the second bullet point under "Facility" that says "Facility Info;" and on that screen you can edit facility information. Now you can edit anything. You can edit your hospitals name, the address, but at the very top there is a CMS Certification Number, and there is a link on the right-hand side of that that says "Edit CCN." And when you do that, you have the opportunity to edit and update that number.

So with our monthly checklist we can check off that first step which is to confirm our CCN in NHSN. The next step gets in to the Monthly Reporting Plans, and this is where we're going to start talking about In-Plan data.

So it's very important to kind of go through this process so you understand what we mean by In-Plan. I think it's also worth mentioning that In-Plan data basically fulfills all of the requirements for an individual record and the data fields that are required. When data are not In-Plan, there are fewer data fields required for reporting.

So, again I kind of mentioned this at the beginning but In-Plan data is what we share with CMS. So the Monthly Reporting Plan actually is what informs us at CDC which modules a facility is following during that given month, and it also informs us which data can be used for aggregate analysis at the national level. And these of course include sharing those applicable data with

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CMS. So if you don't include something in your Plan, we don't share those data with CMS, even if it is part of the reporting program.

A facility has to enter a plan for every month of the year in order to enter data for that month. Plans can be set up in advance. So right now you could actually set up all of your plans through at least December of 2015. So you can take care of all of these at one time to set them up, and you can even copy from month to month what is required. But also what's important is that your Monthly Reporting Plans can be modified retrospectively, meaning you could say, "Oh my gosh, you know what? I forgot to include my oncology ICU in my plan in January." And you can go back and you can update that. So, for your monthly checklist, it's important to review the plan that you've already setup. As I'm sure you all know sometimes things happen in your facility, perhaps a unit closes in your hospital and is no longer operational; perhaps a new wing in your hospital has opened up and you need to report data for that unit. So please be sure to check your Reporting Plan each month to make sure it is reflective of the reporting that is occurring in your hospital.

So for the CMS PCHQR program, your Monthly Reporting Plan should include: CLABSI data for each oncology location; CAUTI for each oncology location; and colon surgery for SSI's, and we have "setting in," meaning its inpatient colon surgeries; as well as HYST or abdominal hysterectomy surgeries.

This screen shot shows an example of a Monthly Reporting Plan for an oncology hospital. Now I do realize that I only have three units here, and I'm sure many of you have more units on your plan, but you could see this plan is set up by module: Device-Associated Module and Procedure-Associated Module,

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and it actually expands below that into other modules that we have.

So this right here is actually in view mode so I can't change anything on it. But it does show me what I included in my plan for April 2015. And I actually have three oncology units. I have a Stem Cell Transplant, a Pediatric Hem Onc ward, and a Med Surg to Oncology ICU. And for each of these locations I have checked CLABSI and CAUTI. And so that tells me that CLABSI and CAUTI are In-Plan for these three units only. I also have the "SSI Inpatient" selected here: colon surgery and abdominal hysterectomy surgeries. Those checks next to "In" tell me that inpatient procedures for those two procedure categories are considered In-Plan.

Once we've reviewed the Monthly Reporting Plan and we know that it is accurate and reflects the reporting that is being done by my hospital, the next thing, of course, is to identify and enter all "events" into NHSN by unit. Now I save by location – that "by location" is actually applicable to CLABSI and CAUTI. The SSI data are reported by procedure.

So let's go through entering "events." So, just a few bullet points about the entry of "events" ... Of course, "events" need to be identified according to the NHSN protocols, and that prospective surveillance method needs to be followed according to the protocols. When "events" are identified, then of course you need to report those or enter those into NHSN if that "event," of course, meets the definition for that event type.

Events can be added by using the "Event Add" option in NHSN. Note that there are some special instructions for SSI's, and that is that each SSI has to be linked to a procedure record in NHSN. So keep that in mind; the procedure record already has to be existing in NHSN. So this is an example of where you

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may want to report your procedure data first and then enter any SSI's that were identified following those procedures.

Another reminder that I have for everyone is that the Patient ID really is the primary identifier on that record within NHSN for your individual hospital. So please be sure that you're using the same Patient ID and it is one that is – that would remain with the patient throughout different visits to your hospitals, or something like a medical record number. Also remember that because it's a primary identifier, if you have a Patient ID – if you enter a procedure record, let's say, and you enter 00-012, that is not the equivalent of 0012. So, if you have leading zeros, if you have dashes, if you have letters that precede a patient ID on a procedure record, the same must be true on the SSI record. So, if you enter an SSI and the system tells you we cannot find the procedure for those patients, then, you need to stop and go back and look at that patient ID. And we do have information about this in the SSI-specific training on the NHSN website.

So, we've checked off a certain item on our list here which is identifying – entering all “events” that have been identified according to the protocols and you'd enter those into NHSN.

The next item is to enter denominator data for each month that's under surveillance. So we're first going to talk about the entry of denominator data for CLABSI and CAUTI. For CLABSI and CAUTI, denominator data are entered for each oncology location each month. So, you would basically have one record for every unit for every month. To do this, you go to the “Summary Data” option on the NHSN navigation bar and click “Add,” and there's a dropdown for “Summary Data Type.” And so you'd want to select “Device-Associated-SCA-Onc.” That SCA stands for Special Care Area, which is actually hardly used in NHSN anymore. Instead, we mostly have oncology units.

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The reason that we split this up this way is that the denominator data collected for Central-Line Associated BSIs is different for oncology locations than it is for any other unit. So even if you have an oncology ICU, you want to make sure you use this Device-Associated Onc option for your Summary Data Type.

So when you need to enter your denominator data, you need to enter the Patient Days and the Device Days per the NHSN surveillance protocols. Again, we have surveillance protocols in place for how these data should be collected on a monthly basis. And remember that for oncology units, Central-Line Days must be collected and reported by line type. So, we have the separation of Permanent Central-Line and Temporary Central-Line. The reason we do this is because the temporary central lines put a patient at higher risk for a CLABSI, and so, we want to be able to differentiate that risk. So it's very important these data are collected in this way. You would not want to collect these data as one line type for these units, and you would not be able to enter those in that way.

So, this is a screenshot showing you the data entry for the CLABSI and CAUTI denominator for an oncology unit. This is for March 2015. Of course, we need the Total Patient Days, and then, we ask for the Temporary Central-Line Days, Permanent Central-Line Days and Urinary Catheter-Days. Now, one thing, I want to point out here is, next to each of these data fields, actually, for almost all of them, we don't have as per Ventilator Days but for Catheter Days and Central-Line Days, there's a red asterisk. This red asterisk indicates that this is a mandatory required field. And these data are also In-Plan. If these data were "off plan," I would not have anything required for any of these denominator days, okay? So, these red asterisks are good. This tells you these data are In-Plan at the time you're entering the "event."

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Now, when you enter these denominator data, if you know at that point that your hospital had not identified any events of that type, you can check the "Report No Events" box, next to these – next to the "Device Day" [Central Line Days] or next to the "Device Day" [Urinary Catheter Days] field.

We'll talk a little bit more about "Report No Events," but you have the opportunity to check it here if you have zero "events." But know that it is a required step at some point to check that box in order for those data to be complete if you had zero "events" to report.

Next, let's talk about the denominator for colon and hysterectomy SSI. The denominator data in this case is the actual procedure record. So, NHSN requires that hospitals enter a procedure record and individual record for every single procedure performed in their hospital during the month under surveillance for each procedure category followed. So that means a hospital would have to enter one record for every patient that underwent a colon surgery, an inpatient colon surgery. This is because we select a lot of risk factor data on the procedure record itself, and so, we don't have a summarized way to collect these data. We really do need the patient level risk factors. These procedures can be entered by selecting "Procedure" on the navigation bar in NHSN, and then "Add." Or if your hospital has a system set-up, you can also import the data using a CSV file or Clinical Document Architecture or CDA. CDA files are typically generated by a third-party vendor system if their hospital has a surveillance system that can be used to compile these data for you.

Now that we've completed the first four steps, we are almost done with what would need to be done for complete data. And this last step is incredibly important, and it's related to "Alerts"

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that appear in NHSN, and it may be something that the hospitals may ignore or forget about. So I'm going to walk through each of the four "Alert" types that you may see that are applicable to the reporting that you are currently performing.

First and foremost is that "Alerts" are generated for In-Plan data only. So, you know, this is really – this step is assuming that all other steps really have been completed, that you have the data in your Monthly Reporting Plan first. If data are not In Plan, you don't see "Alerts." The "Alerts" are really meant to help you and to help your hospital ensure that the data are complete.

So I've listed the four "Alert" types here that we will go through today but as we walk through these slides, know that if any of these "Alerts" are not resolved, the data for that month are not complete and they're not submitted to CMS, okay? So it is incredibly important that your hospital reviews these "Alerts" and resolves them.

The first "Alert" we're going to talk about is the "Missing Events Alert." This will appear if your hospital did not report a CLABSI or a CAUTI "event" for a particular month or location, okay? And really what this is doing is it is requiring you to verify with the CDC that your hospital truly identifies zero "events" of that type. So we really want to see a zero really means a zero and not an "Oh, my hospital forgot to report those data," okay? So, if your hospital did not identify what we refer to as a "Missing Event," you would check these "Report No Events" on the "Alert" tab or on the denominator data record.

So, remember a few slides ago I showed you [that] next to each of those "Device Day" fields there was a checkbox for "Report No Events?" So certainly, if you know your hospital had none and you're entering your Device Days, you can check the box there, or you could check the box on the "Alerts" tab which I'll be

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showing you. However, if you see this “Alert” and you think, “Oh my gosh, no! My hospital did identify a CLABSI. I’m pretty sure.” Go ahead, enter the CLABSI or enter that “event” into NHSN, and once you do that, the “Alert” will go away.

This is a screenshot showing you the tab and the “Alerts” are all set-up and categorized tabs. And so, the tabs that were on in this screenshot is the “Missing Events “Alert”” tab. So, you can see that we have all the locations listed here, the months and year, and the “Alert” type which says “summary but no events.” So really, what that is saying is, your hospital entered Device Days but you didn’t enter any “event,” and then it will tell you the “event” type.

You have the option to link at directly to the denominator from under the column that says “Summary Data” form type, or you can just check “Report No Events” on this “Alert” screen directly. But please remember, when you check those boxes, for “Report No Events,” click the save button at the bottom so that it will actually save the verification that your hospital had no “events.”

Also, actually I’m going to go back to the slide. I happened to see a question pop up in chat box. So basically, if you have an “Alert” here for let’s say CAUTI for this one location for March summary but no “events,” then that whole month and location would not be submitted to CMS, okay? So it’s really important in order for that – those data for that unit and for that month, for that “event” type to be submitted to the CMS, you have to check that “Report No Events” box.

The next “Alert” I’d like to talk about is the “Missing Summary Data Alert”. So this will appear if your hospital did not report device days or device days for Device-Associated HAI for another location. Now this does not mean if you are at a hospital [that] reported zero on that data entry field it means that

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your hospital actually didn't enter the device data at all, like there is nothing, it's completely missing. Something new this year was 2015, is that this "Alert" will appear regardless of whether "events" of that type have been entered for that month or location, okay? So, if your hospital has entered absolutely nothing for that "event" type and unit and location, you will see this "Missing Summary Data" alert. You will also see it if your hospital reported any "event" but no denominator.

So this is a screenshot of the "Alert" tab. Again, we're on the "Missing Summary Data" tab and you can see here that it has the location, the month, year, and it says "No Summary Form." And so what you need to do is you need to click that link that says "Add Summary" under "Alert" type, and that will bring you to the denominator screen so you can add your data or enter your data.

The next "Alert" will be for "Missing Procedures." So this is going to appear if your hospital has not reported at least one procedure record for that month, procedure, category, and setting. Meaning if your hospital is following colon surgeries for Inpatient procedures and you have not entered any Inpatient colon surgeries, you will see this "Alert." Again, it requires that you verify that your hospital truly performed zero procedures of that type. So if you don't check this box to say zero, then a zero is not submitted for CMS reporting for them. So your hospital would not really be compliant. Again if your hospital does not perform procedures in that category, check the "Report No Procedures" on the "Alert" tab. And of course, if your hospital did perform some but you just haven't entered them yet, please be sure to enter them and that will remove the "Alert".

This is the screenshot, a sample of the "Missing Procedures Alert" tab. Again, this kind of looks similar to "Report No

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Events,” right, where you have the month and year? Here we actually have the procedures and the setting so we can see Inpatient, then you can check the box for “No Procedures Performed” and then click “Save.”

And the last tab we can talk about is the “Missing Procedure-Associated Events” tab. So, this is the place where you can verify that your hospital *does not* report or *does not* identify any SSIs following procedures that were performed during that month, okay? Now, this “Alert” is based on the date of procedure, not the date of “event.” So, if you are performing procedures in January and you enter procedures for January, this “Alert” is going to say, “Did your hospital identify any SSI associated with procedures that are performed in January 2015?” It is not asking if your hospital identified any SSIs in January 2015. So there's a bit of a little, a little bit of difference that because, you know, of course SSIs can be identified in a month that's different from when the procedure was actually performed. So if your hospital has not identified SSIs, you would check the “Report No Events” box, and again, if your hospitals did identify an “event,” then enter that “event” into NHSN.

This is the sample, “Missing Procedure-Associated Events” tab. You can see here I have the month; I have the procedure; the SSI for the inpatient setting; and then I can check “Report No Events” and click “Save,” okay? So again, check this box if you truly had zero that are attributed to procedures performed during that month or year. And I guess what I should say is, for any of these “Report No Events” or “Report No Procedures,” if you check this box and later you come across the pile in your desk and you say, “Oh my gosh, I had a couple of “events” I have to enter,” please go ahead enter them. It will remove that “Report No Event,” so it will count your “events” that you've reported.

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So we've now walked through all of the sets, and we're left with the last step, and that is to use NHSN Analysis Output Options or Reports to verify the actual [data] you see and completion of your data, okay? When we're talking about CMS reporting, *please, please, please* do this prior to a CMS deadline, okay? Give yourself plenty of time to review this data to make sure that they are complete, and if you are using NHSN for any other purpose for your own internal reporting or as part of a group, you want to again, consistently and repeatedly, review this data.

So we're going to talk a little bit about analysis. Now, you know, this is really just going to scratch the surface of these reports, so please be sure to review our training that we have on the NHSN website. I believe we have resources at the end of this web conference. So the Analysis Output Options, we have specific CMS-related reports and we created these in order to help facilities review the data that CDC would submit to CMS on their behalf. So it's kind of a preview. In other words, if the data for quarter one were submitted today, this is how my hospital would be represented. This is what would be sent to CMS for my hospital. Again, if you're not familiar with analysis or need a refresher, please review the Analysis Resources and Trainings that we have on our website. I have this link here:

www.cdc.gov/nhsn/PS-Analysis-resources/index.html.

We are currently uploading the videos that we presented in February in Atlanta. We had three days of training and we do have a couple of – Actually we have three different analysis trainings, so I encourage you all to review those as you have time if you have not seen them or if you're less familiar with that functionality.

So all of the CMS-related Output Options are included in a folder on our “Output Options” screen that says, CMS reports,

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OK? So typically all of the reports in NHSN if you've seen them before, they are organized by module in that "event" type. But for CMS-related purposes, we really wanted to direct hospitals to the report that they would need in order to check for compliance with that measure. It's a directed approach. These reports do take into account all of the requirements, okay? Meaning, the data will only be included in these reports if they are complete by all the standards that we've already talked about, meaning In Plan data; meaning you've reported denominators; meaning you've reported "events" or checked the "Report No Events" box.

So this really is a mirror to what we would submit to CMS on behalf of your hospital. You can tell, I can't stress this point enough, I think it's incredibly helpful for hospitals to review these reports. It will allow you to make sure there are no surprises down the road and also encourage hospitals to save a copy of the report as it's leading up to the next deadline so you know what data are submitted for that upcoming quarter.

Whenever running reports in NHSN, I always recommend to read the footnotes to the reports. We do have valuable information regarding the data in each table, specifically as it relates to the rates and SIRs in NHSN. Again, the data in these reports should be used to confirm the data accuracy and quality prior to a CMS deadline for that upcoming quarter, because once we submit data for a quarter and that quarter's deadline has passed, CDC does not submit updated data to CMS, okay? So you really need to make sure that the data are right before that deadline. The NHSN database is a living breathing database so anything you change you'll always see in analysis, but those updates are never sent forward to CMS after that deadline, okay?

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For class CLABSI and CAUTI data, in particular, the data for PCHQR are submitted to CMS as quarterly rates per CDC location. These reports will include complete In Plan data for January 2013 and forward. So let's take a quick look at one of these reports. Okay, this is a sample report I ran at the CLABSI rate table for CMS PPS-Exempt Cancer Hospitals here. You could see that the data are listed by "LOC CDC" or what is referred to as the CDC location. This is the standardized location definition that your hospital has mapped your units to, okay? So we give you the quarterly data: which quarter, the number of months; so this month's column will tell you how many months of data are included in that quarter for that location. So for this first row here, for the first quarter of 2015, I have three months of data already, and I know that the data here are complete so I can look at these numbers and say, "Is the number of Central Line Days correct? Is the CLABSI count correct? And you can run your data checks?"

But I also noticed we do have two months or two locations in this table that have only two months of data submitted for this quarter. So that means that CLABSI data for those two locations are considered incomplete if we assume that those units were operational and open during all three months in the quarter. So for those two locations, I'd want to go back to my checklist, and I'd want to say okay, let me check my reporting plan. Are these units In Plan for CLABSI? Then, once I check that, I can go through and check do I have any "Alerts?" Have I reported my denominator data? Have I reported my "events?"

Colon and Hysterectomy data are currently – they are submitted to CMS as quarterly SIRs by procedure category. These do include complete In-Plan Inpatient data for January 2014 and forward. And the SIRs or the data that are submitted is what's called the Complex 30-day SSI SIR model. It is the same risk

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model that is being used for the IPPS acute care hospitals. I know we have received questions from some cancer hospitals regarding if there is a model specific to their patients and their hospital types. At this time, we do not have that type of risk model. However, we will be analyzing 2015 data towards the end of this year and of course the first half of next year, and so we will be looking at ways in which we could possibly fine-tune, I guess you could say, risk models for the cancer population or the cancer hospitals.

Again this is a very, very high level review of the analysis in NHSN. I do want to let you know what the SIR is, and in simplest terms, the SIR or Standardized Infection Ratio, is the number of observed infections divided by the number of expected. So the number of observed is the number of SSIs entered into NHSN for that procedure category in a time period, and the expected or predicted number is the risk adjustment that's applied using national base-line data.

This is a sample SIR report for SSI data, colon and hysterectomy. This is a – the PPS-Exempt Cancer Hospital example. Notice we have one row for each procedure category. We provide you with a procedure count, the number of infections, the number of expected infections, and the SIR. What I also want to point out here is that there's a lot of text below this table, and those are your footnotes. So please be sure to review those. Also, below [where] every table is, we have something called or that's labeled “Data contained in this report were last generated on” and we provide a date and a time, okay? So that will tell you when your hospital generated data sets in NHSN, and that's a process described in our analysis training, and that is when the data are most current, okay?

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So when you're leading up to a CMS deadline, I recommend that you generate data sets right before the deadline and run this report one more time. That last time you run the report, hopefully you've done all your quality checks. You're not going to be surprised by the results, but you will have a copy to show you that as of that date and time, these are the data that are submitted, or that would be submitted, to CMS for my hospital.

Also, notice above this report, we have your hospital CCN. So not only do we have the NHSN org ID or Facility ID but we also give you the CMS Certification Number that your hospital has reported in NHSN. So this is another way where you can see, okay, have we entered this number correctly?

Okay, as I just mentioned, the data that appear in these, all of these reports will be current as of the last time you've generated data sets, okay? Again that process is explained in the analysis trainings on the NHSN website. Any data changes that are made in NHSN will be reflected in the next monthly submission to CMS, with the exception of the quarterly data that are frozen for a final submission date for a quarter. So if data are due by May 15th, then no other updates for that quarter are submitted after May 15th. Just, you know – another – just to reiterate, so if you make changes in NHSN to a quarter's data after the deadline, you can see them in NHSN but CMS will never see those changes. So I really recommend, I highly recommend that your hospital develop a way to keep track of any changes that are made to your data within NHSN after a CMS or some other deadline, okay, so that you know if you had to make a modification to an event or to leave off an “event.”

So now we would kind of [like to] talk about all of the CMS reporting in the CMS side of reporting these data to NHSN. We also get the question of “Well why analyze data in NHSN,

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especially if your hospital has other tools in use?” Well, the Analysis features can help you provide feedback to your internal stakeholders and internal partners, and they can help you facilitate internal validation activities and then form a prioritization of prevention activities. But also, data that are entered into NHSN, of course, can be used by CDC, CMS, which was, you know, the large portion of our presentation today, and any other groups that have rights to your data. So, we really want you to make sure that you know your data better than anybody else and that you can speak to your data.

We, you know, we recognize that you may have data in other sources. So you can use one or more tools to help analyze and manage your hospitals HAI data. So in addition to using NHSN, and you may be saying okay, well here's the NHSN data that we want to make sure we're compliant with this and with that, but we also have other data that can help supplement the story for our facility that that may be points that are important internally. So you may have commercial or home-grown hospital surveillance systems. You may have Excel or other products that helped you to keep track of data. Or you may use Open Epi to help analyze and come up with statistical results. I think you know, really the point I want to get across here is, don't limit yourself, okay? So in addition [to] the other data sources, there were different reports you can use. While the SIRs and rates are credibly helpful to help tell an overall story of your hospital or of a unit and the HAI experience, there's also Line List, there's Frequency Tables that are run within NHSN that can actually give you counts of “events,” meeting certain criteria. You may wish to use graphical-type reports or even descriptive statistics. Now, NHSN does not actually provide descriptive statistics within the system, but you may wish to calculate those external to the system. So what's the average or the mean? What is the distribution? Do we have any outliers in our data?

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And that outlier may actually be important when you're reviewing the procedures in procedure level data for your SSIs.

It's also good to keep in mind data quality checks. And when performing data quality checks, it's important to know what is actually being measured, how, and for which time period. So for example, let's say your health department is asking you to review a preview of your hospital's SIRs for the calendar year 2013. So here we have the "what" is being measured. SSI, how is using the Complex A/R model. And the time period is 2013. The same could be said for reviewing CMS-related data. What HAI is being measured? How is it being measured and for which time period? It's also good to understand what is required for completion of the data and what risk factors contribute to that measure. So when we're talking about SIRs, what goes into the risk adjustment of that measurement?

Also, when you're reviewing your data, know your numbers, and my guess is that the majority of you already do know your numbers. You know how large your units are. You probably know the approximate number of patient days or admissions that are in your hospital or that are in a unit every month. You may even have a good handle on the device use for locations that are under CLABSI and CAUTI surveillance. And you'll likely know that the average length of stay, or where you're able to get that information.

So that's just an example of some things that can help you in reviewing your data. And also be aware of changes to your hospital's electronic data system and what could impact your reporting. This is just a quick look. This is not an all-inclusive list, but sometimes hospitals may wonder, "Well, what changes to my data can impact my rates and my SIRs?" Some of these are more obvious than others, like changing the number of

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device days, changing the number of events, adding events, deleting events. But sometimes, changes to data, such as changing your Monthly Reporting Plans, can change what you see in those In Plan CMS-related reports. What about any change in risk-factor data for procedures and SSI? Let's say you change a patient's date of birth and it ends up changing that patient's risk.

We have a wealth of resources on the NHSN website. I encourage you all to visit. We also have a CMS-related reporting page. So please take a look at those documents. Bookmark these pages. Visit them often. If you have trouble finding anything or have any other questions, please feel free to contact NHSN at the email address listed on this slide [\[nhsn@cdc.gov\]](mailto:nhsn@cdc.gov).

So that concludes my presentation. I appreciate you all joining, and I appreciate your attention and I will turn it back over to Lynn.

Lynn Jones:

Maggie, thank you for an excellent presentation. I know that this will help all of us do a better job in reporting and also to know our data better before we transmit. Very interesting about the fact that at the end of each quarter they can no longer have those information or data reported up through to CMS. So, very motivational for all of us to understand this. Before we go to our next portion about – continuing education needs to be covered.

First of all, on this next slide, this program is certified for one continuing education credit. It's given by the following professional boards. Also, those of you that are attending from other states, you'll receive a certificate of completion for submitting to your licensing board. Also, what we're going to ask you to do is complete the ReadyTalk[®] survey. You'll receive an email within the next 48 hours or the one that will pop up

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after the webinar. The survey will ask you to log in or to register and access your personal account in the Learning Management Center. There is a one-time registration process that is required. Now this shows you what the survey will look like, and I would like to take the opportunity to point out question 11, “What topics would you like to have presented that relate to the PCHQR program?” Maggie's presentation was just excellent and I think will help us all as we move further into the future with new measures forthcoming.

Please put in your ideas because we do adjust our seminar topics based upon your input. And once you go ahead and you've completed your survey, you'll get this, which is basically where you'll be able to find your certificate. Now, if you press “Done” on this slide, which Maggie discussed earlier, you will not be able to (turn out) your certificate, so please go to the new user link or the existing user link. Do NOT press done. But once you go to the survey, you'll have something that allows you to register, and the next slide will also provide your security log-in for those of you who have previously registered in a course. We'll go to our questions.

But again, Maggie, thank you so much, and we really want to have you come back. Let's go ahead. Let's see, I think we're getting – we'll get about a couple of minutes. Let's see. I'm trying to pull up our questions at this point.

Maggie Dudeck: And Lynn, I think I have time for about one question because I do have to run off to another meeting.

Lynn Jones: Okay, I know that you've already answered one of the questions, and there has been one that came in about patient days. “My facility provides me adjusted patient days and then just total patient days. Do I use the adjusted?”

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Maggie Dudeck: So, that's an excellent question, and I honestly don't know if we've received a question before like that, or at least I haven't. I guess my question back would be what do we mean by "adjusted patient days?" So you know, I think that question that kind of, maybe should be taken to the NHSN mail box so that we can inquire more about what the difference is between "Adjusted" and "Total" patient days.

Lynn Jones: And also, the individual that signed or sent in that question, if you want to provide a little bit more detail as far as the definition of adjusted and how your hospital determines that. Also, Henrietta will be making a presentation (along) next month, and I'm basically going to announce that our next presentation will be on providing information on the 2016 IPPS, LTCH, PCH- Proposed Rule for [the] next presentation at the end of May. So we'll have a guest speaker that will be from the CMS team, Caitlin Cromer, and also the rest of our staff here will be participating in that presentation.

The remainder of the questions that we've had sent in to us will be published in our meeting minutes and they will be available on *QualityNet*, and we will be sending these minutes and the associated information out. And you'll also have the recording, the verbal recoding available to you, as well. And so, I want to thank Maggie again for your excellent presentation, good advice and suggestions. We look forward to you all having a great day and great rest of the week. Take care and good bye.

Maggie Dudeck: Thank you.

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