JOHN SNOW, INC.

Moderator: Charles Daly
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12:30 pm CT

Operator: Ladies and gentlemen thank you for standing by.

Welcome to the Sampling Methods Including Randomizer.org webinar.

During the presentation all participants will be in a listen only mode.

Afterwards we will conduct a question and answer session. At that time if you have a question please press the 1 followed by the 4 on your telephone.

If you would like to ask a question during the presentation please use the Chat feature located in the lower left corner of your screen.

As a note questions submitted through the presentation will be addressed midway through the presentation. All others including phone questions will be addressed after the presentation has concluded.

If you need to reach an Operator at anytime please press star 0.

As a reminder this conference is being recorded Wednesday, December 19, 2012.

I would now like to turn the conference over to Mr. Charles Daly, Public Health Analyst. Please go ahead sir.

Charles Daly: Thank you. I'd like to welcome the grantees and the Bureau of Primary Healthcare staff to today's webinar on Sampling Methods for Reporting Uniform Data System Clinical Performance Measures for 2012.

The slides for today's presentation are available under Reporting and Technical Assistance on the Health Center Data and Statistics web page. I'll just read the link. Its http://bphc.hrsa.gov G-O-V slash all one word healthcenterdatastatistics/reporting/index.html.

Soon you'll be submitting your 2012 UDS Reports and today's session will be very valuable to you in helping you to do this right.

I would note that a couple of things. First the 2012 UDS Manual is now posted on the Reporting and Technical Assistance web page.

Second, the schedule for the remaining state training's is posted on that same web page, these training's occurring through the end of January.

So without further ado I'd like to now introduce our presenter known to many of you who's Art Stickgold, our JSI Consultant for the UDS for many years. Art.

Art Stickgold: Thanks a lot Charlie and good morning to everyone at least those of us on the West Coast and good afternoon to those of you on the East Coast; today we're

going to be talking about completing the clinical measures and in doing so you need to be reporting on the patients that you are seeing and you can do that either through universal or sampling methodologies. We're going to be talking about sampling but also about making that decision.

So why discuss sampling, it's going to be dealt with initially, then where do we use it?

We're going to talk about your choice. It's up to you whether you use a sample or report on the entire universe when you're reporting on your clinical measures. Excuse me. That's a choice you will be making for each of the measures. We'll talk about how you make that choice, when to sample, when to use your universe.

We'll talk about then if you're going to do a sample how do identify a random sample. How to get the data out of your chart so your electronic systems and then a couple of pointers about successfully using sampling methods as well as of course listing references and available resources for assistance.

We're going to talk about universes and samples for each for the clinical measures. And the focus on this after we go through that will be talking about how you actually identify which patients you're going to review in your clinical measures.

So why sampling; for 2012 there are 1200 Health Centers in the United States or maybe more, Health Centers and look alike Health Centers who will be reporting on a total of 14 clinical measures. These clinical measures are selected to cover all lifecycles and to address both preventive and treatments and within treatment, treatment of chronic and acute conditions.

Health Centers have different abilities to capture and report these data. Some of you have actually been working with electronic health records for nearly a decade now and as pioneers in the field have highly automated systems that can address virtually all if not all of the health measures that you need to report on to BPHC.

Others are brand new to the EHR process and may have it in place for less than a year or for two or three years. And others of you are not yet transferred over to an EHR and are still using practice management systems or some other data collection processes.

So given this wide range of abilities it's critical to talk about the options available to you.

For some of you you're now able to actually generate reports which provide the data from your EHR and which essentially virtually populates the electronic handbook tables. They give you the exact numbers to enter into them and other than reviewing them for accuracy you can use those numbers.

But we would note that some of the BPHC measures are a little bit different than their meaningful use equivalents. And so even with an EHR which is a fully certified system you may need to check to make sure that what is coming out of your system is in fact what is being reported to the BPHC.

Health Centers may choose to report on either a - the universe, which means on all patients who fit the criteria or on a sample of those patients. And you make that choice independently for each of 12 of the measures. There are another two measures that everybody must report the universe on. So there is no question.

The choice as I said is made independently for each one of the measures that you're looking at. And there's absolutely no requirement that all measures are treated the same way and in fact because the universes are so desperate and so different there's virtually no instance where two universes if you were able to identify them would be the same or two measures make use of the same universe.

So what about this clinical measure reporting?

For the past several years the bureau has been building a cadre of clinical measures that will help you and them, identify your quality of care vis-à-vis specific chronic conditions and specific acute conditions. Similar measures are being adopted within the Medicare and Medicaid Systems and are being used in the Meaningful Use process that virtually all of us are joining into as we work with our state Medicaid agencies or with Medicare.

In the UDS there are two specific tables that address these measures. Table 6B addresses 11 quality of care measures, and Table 7 identifies three health outcome and disparity measures.

We have another table that looks at clinical data, Table 6A and for those of you who are not aware of it, you should be sure to look at the manual or at the training slides elsewhere for the tremendous change that has been made in how Table 6A data are collected.

But that said Table 6A is not involved in this discussion of clinical profiles of clinical measures though when we're looking at your Table 6B and Table 7 measures more and more we will be able to turn to Table 6A for confirmation as to whether or not the numbers are in the right ballpark.

On Table 6B we measure a series of 11 quality of care proxy measures. These are all measures that are in the format of if a patient receives timely routine preventive care then that sample of - that group of patients that receives the care will as a whole have health which is better than that of a similar sample which did not receive the intervention.

In all these instances we have best practices and scientific research which has demonstrated that the intervention we're looking at does in fact have a high degree of correlation with positive health outcomes. Of course what we're interested in reality is those positive health outcomes.

But we note that by looking at this surrogate measure, at these proxy measures that we will have an indication of how well Health Centers are in fact going forward to improve the healthcare of their patients.

So what we will be doing is looking at these measures knowing that succeeding on the measure means that overall your patients will have improved healthcare.

In each - in Table 7 we have a slightly different process. On Table 7 it's the same concept. We know that the intervention we're looking at is one highly correlated with a positive outcome. And we know that patients who receive this intervention will as a whole have better health than those who do not receive the intervention and uniquely on the three measures on Table 7 we have a quantifiable intermediate measure that we can look at. We can not only say this intervention will help but we can say we can measure the direct impact of that intervention on a measurable third variable.

So we can look at hypertension. We can look at your intervention. And then clearly measure blood pressure for example to see how that intervention is impacting the patients.

So you have options for reporting. That's what this is about. In each instance when you report for Table 6B there's a very simple standardized format for all 11 measures.

In Column A we need to know who fits the criteria for the measure. Who are the pregnant women? Who are the asthmatic patients? Who are the women who are subject to needing Pap tests? Who meets that full criteria?

It's a number which depending on the measure may be relatively small or in the thousands or tens of thousands.

In Column B we want to know who did you look at for this measure? So Column B says either that you looked at the universe, you looked at every single patient that you counted and reported on in Column A or that you looked at a sample of 70 patients.

Obviously if you only had 50 patients that met the criteria then Column B will be equal to Column A.

If you had any situation where you were reporting on the entire universe, Column B will equal Column A. Otherwise if you're looking at a sample you'll look at a sample of 70 and Column B will equal 70.

So those are the only two possibilities for B. B is either equal to A or it is 70.

And in Column C we want to know of those patients who you counted for us in Column B, how many of them have in fact met the management criteria necessary to say that you've succeeded on that particular measure.

On Table 7 the format is somewhat different. On Table 7 we still ask you to tell us about the universe of patients. So who are all the patients who are hypertensive?

And that must be broken down by race and by ethnicity. And then you'll either report on all of those patients or you'll report on a sample of 70 patients. Either way those that you report on will also be described by race and ethnicity.

The review of a performance measurement can be based on either a random sample or a universe. And if you've noted that we're repeating this, it's okay. We'll repeat it a couple more times because it's one of the most common questions we have on the Help Line.

Ten of the Table 6B performance measures, two of the 7 - Table 7 performance measures can be reviewed with either a sample or a universe.

On the other hand the first two of our performance measures that we had in the UDS carryovers from the BCRR for those few of you left who remember what the BCR was, was early entry into prenatal care and low birth weights or normal birth weights. These two for the last 20 plus years have always been reported on for all patients that is for the entire universe and we will continue to report on all patients during the coming years not only because we've demonstrated that it can be done but because in some instances what we are looking for is a relatively small number harder to capture with a sample, at least harder to capture accurately with a small sample.

So your decision, when do you use a sample, when do you look at the universe?

In general if you want to use a universe your data must meet certain criteria. First, your data set has to include all medical patients who are going to meet the selection criteria or potentially meet that criteria.

Second, your data has to report on all sites within the scope of your 330 supported program so if you have new sites that are not yet in your EHR or if you've brought on the women's health and the pediatrics component but not yet brought in the adult medicine component you'll need to resort to a sample.

Each of the measures requires you to review data for a period of time. And you - if you're going to use the - if you're going to report on the universe your automated data system must cover that entire period or you must have successfully abstracted the records from your legacy system for the entire time period.

A fourth criteria is that some of our measures have exclusions, have said delete the following people from your universe. For example when we look at all women for the Pap test, all women 24 to 64 for the Pap test we say if the woman has had a complete hysterectomy delete her from the sample. That means that your data set has to be able to identify women who've had a complete hysterectomy.

Finally you have to be able to search not only for demographic data but clinical data. You have to be able to determine not only who are the women between this age and that age, who have had this many visits in the clinic but

also in many instances the result of a lab test, for example what was their last hemoglobin A1c?

So your system has to be functional enough to be able to look at all of those variables and cross tabulate them.

In general you're going to use the sample anytime your EHR or your other automated systems do not have the data necessary to report on the complete universe.

But notice you still need to be able to find the complete universe. So a sample doesn't get around the question of, how do I find all my 2 year-olds? You still need to find all your 2 year-olds.

The question of a sample only cuts in after you have found the universe, been able to if necessary identify them by race and ethnicity, and then have to decide whether they met the measurement criteria. So sampling doesn't get around looking for the universe.

So what we're going to do now is walk through each one of the measures and try to identify when it is that you will resort to or take advantage of the ability to look at a sample instead of the universe.

So we're going to talk about when to use a sample because you must. Recognizing that in other instances you might choose to use a sample even though your system might have the capacity to do - look at the entire universe.

So our first two variables that we had, the first two that the bureau began working with were immunizations and Pap tests. For immunizations you're looking at your 2 year-olds. That is the children who turned 2 in 2012.

And you need to know about every vaccine that they've received regardless of who provided it which means of course that if you provide every one of the vaccines for your children it's right there and you have no problem.

But if the County Health Department or a prior doctor or somebody else concurrently or previously had provided immunizations to your children you need to have received that information from your patients and from their providers and then enter it into a retrievable system.

And you need to have that data for all of 2010, 2011 and 2012 because the child's turned 2 on January 2, 2012. A huge portion of that child's immunization data are in the 2010 records.

So while we talk about 2 year-olds we need to have three years of active EHR information present, otherwise you're going to be using a sample.

A similar time situation exists for Pap tests. For Pap tests we need to know about all women and whether they have had a Pap test in the current measurement year, that would be in 2012, or in 2010 or 2011 so for the women in the universe and again remember you'll need to rely on some data system to pull out all those women between the ages of 21 and 64. For the women in the universe if you have all of their data for 2010, 2011 and 2012 and if they went to a County Health Department or a Planned Parenthood or to their own OB/GYN to get their Pap test, if you have the data from that other source in your system as well.

So it's not enough to have all your data for the three years. If you're going to rely on the EHR you're going to have to have the data from all other providers who might have served that woman. This can be done of course through

abstracting or through recording information as you receive it. But note if you don't have it all then you're going to be using a universe.

Subsequent to our first two measures we added another series of measures. And the first two of those deal with the issue of child and adult weight.

For child and adolescent weight there are three data pieces that must be in your system for all patients who are medical patients during 2012. For all those patients age 2 through 17 we want to know first is a BMI percentile in the system so can you see that BMI percentile recorded.

Second, does the system record when nutritional counseling was provided?

And third, does it record when physical activity counseling was provided?

And note you can have something that says counseling. That's not good enough. You need to have some sort of checklist that says nutritional counseling, guns in the home counseling, seat belt counseling, bike safety, motorcycle helmets, physical activity counseling and whatever lists of counseling measures that the Pediatric Department has decided are critical and should be on that list. There needs to be separately identifiable nutritional and physical activity counseling.

If you can identify that and the BMI percentile for all patients ages 2 through 17 then you can use your EHR. Otherwise you're going to need to use a sample.

With adults it's a very similar situation. The number of adults of course is going to be in the thousands. We want to know for the group of adults

specified for each one can you see a recorded BMI. Can you pull that up for every one?

And can you pull up a code for follow-up plans? And remember follow-up plan is a tricky one to find because while it does have a CPT F code very few agencies use those codes. So you need to be able to not only identify when those patients have a BMI recorded but for those who's BMI is outside the standards you need to be able to identify whether or not they had a follow-up plan.

And for here strangely enough you have to have this information for all patients from July 1, 2011 through December 31, 2012. That's because the criteria says within six months of the last visit, so of course if the last visit was January 2, 2012 we're looking for data back through July, well 2nd, 2011.

We then have two measures for tobacco. The first measure asks very simply have you assessed the patient's use of tobacco.

And you need to be able in your automated system to identify all current patients with at least two visits in 2011 and 2012 for the universe but you need to have data for 2010, 2011 and 2012 to show that it was done at their last visit or within a year of their last visit.

This is one that many organizations have because it's part of the health history and as long as you have a health history on every one of your adults, and it shows the date that the assessment was done, your EHR will work for you. But if your EHR fails to capture when that health assessment was done and it might have done when they first - been done when they first became a patient ten years ago, then that's not going to work and you'll have to use a sample.

For tobacco use treatment we have a much more difficult situation. We're looking for tobacco users. And of course if you have routinely assessed all your patients for whether or not they use tobacco then you'll be able to identify all tobacco users for 2010 through 2012 and you'll quickly be able to then go to the next question which is, is there a record in your system showing that counseling and/or medications were prescribed or taken.

Again there is no ICD-9 code that correctly identifies all your tobacco users. There is one that talks about a pathology linked to tobacco use but it is totally inadequate to identify all your tobacco users.

There is a CPT F code, CPT-2 code or series of codes that both identify tobacco users and identify whether or not you provided intervention. If you've used those codes as well for all your patients then you can use your EHR. Otherwise you're going to have to go back and use your charts.

And if you have a problem identifying all your tobacco users let me suggest that in the sampling appendix to the UDS Manual there is a discussion of how to go back and find your tobacco users. Suffice it to say that it is going to be a significant problem.

Asthma is going to present a similar problem for you. There is no CPT or ICD-9 code that identifies persistent asthma. There is a CPT-2 code for persistent asthma. Your challenge is going to be to find the universe and regardless of whether you sample that universe or review the entire universe it's going to be a challenge.

Again I refer you to that appendix in the UDS Manual for identifying what the size of the universe is. But you may in fact have to go through all your asthma patients or go through a large number of your asthma patients to identify

which of them have persistent asthma and then identifying which of those had at least two visits in 2011 and 2012.

And if you don't have persistent asthma coded and drug use coded then you'll have to work with a sample. But if you can identify all of those who had a drug prescribed or dispensed then you'll be able to work with your universe.

We have had some people attempt to identify their persistent asthma patients by looking for those who had a drug dispensed for asthma. That doesn't work since what you're doing is totally circular. You're saying how many of those who had a drug prescribed for their asthma had a drug prescribed for their asthma, doesn't work.

And then we have two new measures this year. We have no experience in collecting these data yet but we've talked to a lot of grantees who are working on it. The exact outcomes will be seen.

But for these two new, first we have to be able to identify the patients.

So can your system identify all patients with coronary artery disease and who had at least two visits in 2011 and 2012?

This measure allows you to use a history of coronary artery disease as an identifier as well as the acute variable.

Note that there are also described for this measure three hospital conditions. We suspect that you will not be able to rely on the CPT codes we have provided you because very few of you are in fact doing heart surgery in your clinics.

So you're going to have to rely on either the V codes history of coronary artery bypass graft, history of stenting or you won't be able to find them. We suspect that some people will not be able to find their post-surgical patients. We will work with that.

And then of course after you've identified your coronary artery disease patients, can you in fact identify all of them who have had medications prescribed or taken?

Our second cardiology measure had to do with ischemic vascular disease. And again the universe is everybody with ischemic vascular disease. And can you identify them? That's who you're looking for.

And then once you've identified them in your system can you identify for every one of them whether or not they have a drug prescribed, dispensed or taken.

We are getting increased messages from grantees that it is very hard to find patients with IVD. So let me just alert you ahead of time that if the number looks small that's sort of what we're expecting.

And finally for colorectal cancer screening we'll be asking can you find in the universe everybody who had one of three different types of tests, one test that you probably could have done, a hemoccult test, but two others that are more complex and the question can you find that for all your patients? If not, you'll probably need to go to a sample of 70 to see whether or not the patients met the measure.

Finally, on Table 7 we have two measures, hypertension and diabetes. Here the question is first after you've identified all your hyper-tenses, can you find

the most recent 2012 blood pressure recorded and be able to work with the number?

We've been alerted to the fact that while blood pressure is almost always recorded at every visit making this an easy one for an EHR, there are many EHRs out there that leave it as a text field permitting patients to do things like indicate which arm the blood pressure was taken on, whether the patient was sitting or standing, whether the patient had an electronic or a manual cuff used and the result is that the text field is not searchable for a number. If that's the case you'll use 70 patients.

And the same with diabetes, we're sure that you can find all your diabetics, the patients who have a diagnosis of diabetes. And the question is can you find all their hemoglobin A1cs?

If you do that test for all your diabetics and if you can query that test and find the results you'll be able to use the universe. But if many of your patients are being seen by their cardiologists and the hemoglobin A1c being sent to you in a note that is not searchable then you'll need to identify all your diabetics and then search 70 of their records to see if they're in compliance.

So those are the measures that you're going to be using and some concepts as to when you will be using a universe versus when you might choose to use a sample.

We're going to pause here and ask (Jillian) to come back on the line from JSI. She's been monitoring the Chat and to go over what questions have come up so far.

(Jillian): Yes. So we've had several questions. The first one is what do clinics, who do not provide pregnancy care, do for those measures that relate to prenatal care?

Art Stickgold: That's such a wonderful question and so very easy to answer. The answer is nothing. If your clinic does not have a perinatal table you'll find a spot in the electronic handbook where you'll check a box and all those data cells will disappear.

If you provide any perinatal care including just the first six months or just until the patient successfully transfers then you will in fact have to answer the questions.

Good question.

(Jillian): Good. Next is if our agency has sub-grantees would we use a sample of 70 from the entire universe or a sample of 70 from each sub-grantee?

Art Stickgold: It's a sample from the entire universe and it's your obligation to identify what portion of your universe is in the sub-grantee's files so if you're looking at any one variable you'll need to figure out some algorithm that allows you to assign a random part of the population from the sub-grantees and it'll be - I hesitate but I think it'll be virtually impossible to integrate the electronic medical records of people in multiple systems to get the universe though in some instances it might be possible.

But remember if any one of the sub-grantees can't do their entire universe then you won't be able to do it for any. You'll have to do a sample for everyone.

So you'll need to say to sub-grantee A which does a quarter of all your work with hypertensive patients you need to do a random sample of one-quarter of 70. Why did I take a number that didn't divide evenly? But, you know, 17, 18 patients will come from that sub-grantee.

(Jillian): Great. Next question that came in was we changed to a new practice management system in September in preparation for EHR. How do we pull our samples?

I'm guessing this will be covered in the next portion.

Art Stickgold: Glad they didn't ask how do we pull our share?

Every year we estimate that at least 100 and these years as many 200 grantees or look alikes will go through the process of bringing on a new EHR or a new practice management system.

For them unfortunately the process is exactly as painful as it seemed when the question was first thought of. Namely, you're going to have to go through a process of downloading data from both your legacy system and your new system in order to find the universe.

So while it's easy to add up the number of visits from each the same diabetic patient is going to be listed in both systems. And so you're going to have to download all your data from each system. Then remove all the duplicates so that if the same person was in both the legacy system and in the new system we want them counted only once. Then do a sample of that group and then you'll have to query both the legacy system and the new system to find out whether or not the individual has met the criteria.

(Jillian): Okay.

Art Stickgold: And let me suggest, that method is painful. And the sooner you get around to starting it and learning how you're going to do it the better. It's not too late. Actually it is late. It should be started immediately.

(Jillian): Our next question is can your pediatric progress note have a checklist that states nutrition and physical activity counseling was given or should the pediatric progress note have a breakdown of what type of counseling was given?

Art Stickgold: And I had said that all pediatric counseling should have checkboxes, but if in fact you just have those two in a single retrievable variable that would work and would meet the criteria so that works.

Our concern is that it not say counseling was given because there is so much different type of counseling that occurs between the ages of 2 through 17 that if all we see is counseling we have no idea what it was about.

(Jillian): Sure. The next question is what time period do we need to have for drug dispensing for asthma patients so is there a look back? Is it just (unintelligible)?

Art Stickgold: The drug dispensing for asthma patients is currently so you want to know whether the patient is currently using or has had prescribed or has in their possession the drugs.

Most prescriptions are for a 90 day but it might be for as much as a 90 day with three refills. If you're actually going to be looking into a prescribing database, then you probably need to be able to go back at least one year from

when the visit was. And if the visit was January 1 you'd need to go back at least to January 1 of 2011.

(Jillian): Okay. Our next question is - I'm sorry. So there are several. Several people have sent questions in wanting to know, what is an acceptable follow-up plan?

One is for the adult BMI measure, if somebody falls within the normal range, do they still need counseling?

And two, if they are outside of the normal range what falls into the category of follow-up plan?

Art Stickgold: Good because this is an area where we have a lot of people getting confused. And in fact they're getting confused because the measure itself is not one of the best designed measures. It tries to address two different variables and in the process confuses everyone.

If a BMI has been recorded and it is within the normal range then that's the end. That case is compliant. That case has met the measurement criteria. And that's the end.

It's only if they are outside of the measurement criteria that the question is raised as an acceptable follow-up plan been provided. With both this and the question so cessation for the tobacco one the - there's no detailed description of what is an acceptable plan. It should meet a plan criteria that has been designed and developed in the quality process within the agency so if your agency says A, B and C are necessary for an acceptable follow-up plan, then that's what it would be.

(Jillian): Okay, perfect. The next question was is it appropriate to measure persistent asthma by diagnosis on multiple visits? So for example if they had multiple asthma visits over a period of time would that be indicative of persistent asthma?

Art Stickgold: In theory, persistent asthma can only be diagnosed at the initial visit; the problem with persistent asthma is when you take the intervention namely prescribing drugs you wipe away the symptomology so you shouldn't see persistent asthma by - as the way it's defined after the initial diagnostic visit.

If somebody has what was considered intermittent asthma initially and it progresses to the point where the doctor says I am now going to call it persistent then yes, multiple visits could end up with a persistent asthma diagnosis.

So unfortunately there's no way of saying at which visit will this occur. Though start with the first visit where asthma is prescribed - is diagnosed. That's the one that's mostly likely to see it.

(Jillian): Great. The next question is for the CAD measure, for the coronary artery disease measure, can we exclude patients with active liver disease and/or alcohol abuse?

Art Stickgold: The simple answer is no which is to say there is no specific exclusion for that condition.

(Jillian): Perfect. And the next question is for the IVD numbers, you mentioned it's okay if the numbers are low. But what if they have none?

Art Stickgold: That would be very low. We don't know. We gotten people saying they can't find any. We don't know how prevalent that's going to be. We really haven't worked with this measure yet.

But if the number is precisely zero I would make sure that the query has been written correctly before feeling confident that they can go forward and say in fact they have no such people in their population.

(Jillian): Great. And just a couple left. We have - the next question is we have only had our EMR for one year and some of the measures ask for three years of data. How do you handle that?

Art Stickgold: By sampling, the - but we'll go on in a moment to say that doesn't mean your EMR is worthless. When - after we finish doing the sampling many of the queries can be answered with the EMR.

But if you're going to have to determine whether somebody got a Pap test this year, last year or the year before and all you have is this year's data, the last thing you want to do is have to pull manually the record of every single woman where they don't document in the EMR that a Pap test was done and review it by hand.

So in that case you would need to use a sample.

(Jillian): Sorry. We have questions coming in fast and furiously right now. The next question is how do you identify the universe to include active patients, those seen within the past X number of years?

Art Stickgold: So the universe is defined for each variable separately, and I would refer you to both the manual and to the training's that are coming up and to the training

slides that are posted at the bureau's web site if the one for your state has already passed.

The universe is defined differently on every single one of these. The age is different and if the age isn't different the number of visits or the period during which the visits may have occurred.

The one thing that is constant in part because the bureau has said we will make it constant is that every patient in your universe is a patient that you've served during calendar year 2012.

So even in the case of the one measure that says for any patient seen within the last two years for the BPHC equivalent we're saying they must have been seen in 2012 because the entire UDS is predicated on a person who is a patient in 2012.

We're going to take one or two more questions and then we're going to go back and finish up.

(Jillian): Yes. It seems like several of the questions that are coming in now are related to each other so I think our best approach may be to go on and we'll do our general answers for some of the ones that are tied to each other.

Art Stickgold: Very good.

(Jillian): Okay.

Art Stickgold: Okay, so...

(Jillian): So let's go ahead.

Art Stickgold: ...let's - whoops. Let's not go backwards. That's wrong. Let's talk about sampling methods and what that means.

A random sample is, and I'm going to skip forward then come back. A random sample is a subset of a - the universe where each member of the universe, each patient that's in the universe has the exact same chance of being selected as every other patient in the universe.

So we had somebody ask the question, should we get 70 from each of, in that case sub-grantees?

And if you were to take the same number from, for example each of your sites, then a patient in a site with 1,000 patients would have a 1,000-to-1 chance being selected. A patient in a site with 500 patients would have a 500-to-1 chance of being selected and would be more likely to be selected.

So the random sample is where each member of the universe has the exact same choice - chance.

And what that means is you must have the entire universe of medical patients who meet the selection criteria in one list. And that's regardless of whether or not you're using sampling. But for sampling it's critical.

And that means it's all sites. It means it's your sub-grantees. It means it's all programs, it's your pediatric program and your adult medicine program and your family planning program and your perinatal program. And it's all activities and it's all medical providers. It is your total medical program.

That said be assured that in all of these reviews we're talking about your medical patients. If you have a patient who is only seen for dental care they are not a part of that universe.

Now why 70?

Well the best answer is then it can produce accurate data with a reasonable confidence limit. Most of you have had a course in statistics. Many of you look back fondly to it and look back even more fondly to having forgotten a lot of the details of setting confidence limits.

But suffice it to say that a sample of 70 for most of the things we are looking at gives us a pretty darn good agency by agency report on quality of care.

And of course it also minimizes the data collection burden on Health Centers which is why the Office of Management and Budget called the Bureau of Primary Health Care to specify a sample of 70 so as to ensure that grantees are not overburdened by the reporting requirements.

The sample is used for measuring performance and this means that you still need to be able to identify the universe no matter what you're doing, so why 70, because it works.

How 70; when you're looking for a random sample the first thing you're going to be doing is identifying that universe no matter how you're working whether it be with paper records or with the most sophisticated EHR, you're going to need to create a list of all the people who fit the criteria, for example all the medical patients who turned 2 during 2012.

It doesn't matter what order that list is in. It can be in alphabetical order. It can be in numerical order. It can be patients from Agency A - Site A followed by Site B followed by Site C, as long as we're going to use a random list.

And the next step is going to be after they are all listed and numbered from 1 to whatever it is you're going to select 70 of those patients to be included in the random sample.

We'll talk about replacements in a second but you could replace - you could do more than 70 so that you have extras in case one of the ones you thought was a medical patient turns out to be a dental patient.

But you're going to be able to - you're going to need to select randomly 70 of those patients.

After you select the 70 you're going to review and I'm saying the charts here because I'm an old man. But let's say the records, forget charts. Review the record sample to determine if the performance measurement was met.

And that may mean looking at the data in your EHR. It may mean using disease registries or chronic disease registries like i2iTracks. It may mean turning to state immunization registries or to logs or practice management systems. There any of a number of different resources you might turn to to determine whether or not performance was met.

And then if going through this process you do find the patient really didn't belong in the sample it means looking at the extra patients that you've pulled or looking at additional charts to replace the ones that may not have qualified.

So creating a random sample, as I said first create a numbered list. Second, for a truly random sample generate a list of random numbers. We're going to look at one in a couple minutes. The randomizer.org methodology which is a nice convenient tool that's on the Internet and which if all things work well, and they never do in webinars, I'll be able to demonstrate in a moment.

You'll pull a list of random numbers which correspond to the charts identified in the random - in the numbered list of patients. Look at those charts and determine the level of compliance.

So you can do one of two things. Get a set of 70 numbers and then that second set of replacements or if you're going to use random numbers per se you can just pull a random sample of 75 or 80 numbers and work with the first 70 assuming that if one of those turns out to be unacceptable you can go to number 71. But you're in the end going to report on the first 70 that met the criteria.

So this is essentially what the web site looks like. And now we'll see if this works.

We're going to go to randomizer.org and see if it will in fact - okay, refresh. There we go. It works.

So this is what it looks like. And we're going to say that you want to look at one set of numbers. We want in our set, well we want to look at 70 but let's pull 75 random numbers rather than 70 so we have five extras to look at.

If when we pull the list of 2 year-olds we found we have 412 2 year-olds and we have a list of them now numbered from 1 to 412. We're going to say from 1 to 412.

Do we wish each number to remain unique? We'll say yes.

Sometimes if you're working with charts it helps to sort the numbers in which case you would say 70 not 75. So we'll do that but if you - and that'll lead to two sets.

So let's sort them. And then tell it to randomize. And about that fast, about blank; well wouldn't you know. About that fast you should get a list of numbers. Only the way I'm in the system now it's not showing the numbers. But you would get a list of numbers here. And those would be the chart numbers of the charts that you need to look at.

So sorry, not the chart numbers but the sequence numbers so it would give you a list that showed 1, 7, 13, 25 and you would go to the 1st, the 7th, the 13th and the 25th chart in order to identify and select the charts you're looking at after which you're going to look at each one of them and determine whether or not this criteria is met.

So that's our option number one.

Option number two, a little bit more crude but equally effective, requires you to have a numbered list of all patients in the universe and in this case it must be listed randomly. So you can't have all of Agency A, then Agency B, then or Site A and Site B and Site C. That could bias the sample.

So we'll say a list of all patients in the universe. You'll start with some patients anywhere in that universe. You'll calculate a sampling interval.

So if we're looking for 70 charts and the total is 280, then you'll select every 280 divided by 70, four patients to look at.

And graphically that would look something like this where we have a sample interval in this case of 3. We start with this second record. Select it at random. And then look at record five which is record 2 plus the sampling interval 3. And we look at record 8 which is 5 plus 3 and record 11 which is 8 plus 3 and so on.

And those are the charts that we're going to be looking at in our random sample.

Then I'm saying looking at and we have extract the data, and that means have to determine whether or not they meet the criteria.

Often you're able to find this out from the system that gave you the universe. Find out some if not all of it.

So it could be for example that your EHR will print out every diabetic and if that diabetic has had a hemoglobin A1c during this year, the value of it but can't tell you if that hemoglobin A1c was done somewhere else.

In that case you'll look at everyone that has a hemoglobin A1c from the printout but for the ones that don't that in your sample of 70 you will have to go and actually look at the record, see if there's a notation in that record that the patient got their hemoglobin A1c done at the cardiologist office and the result is X and use that.

Similarly with the 2 year-old immunizations you might look at all 2 year-olds and what you have in your system if it shows them fully immunized you're

done. But if they're missing for example that (Hep B) immunization you might then go to the state registry and to see if you can identify that the child had the Hepatitis B. So you'll look at offline lists.

Eventually as I said some or all of the records are going to have to be reviewed. Hopefully you can review them from a central location. So if it's a question of looking at electronic health records and looking at a combination of legacy data that is scanned in and notes and other information that is entered by the clinician you might be able to do it all in one site.

If you're actually going to have to proceed to look at physical charts then we would suggest that you identify the charts that need to be looked at and ideally either bring them to a central point or worse case have somebody travel from site to site. It's ideal to have the same reviewer look at them all.

But you can also have people at each site go in, for example tell you is there anything in this chart that shows that the kid had the Hep B.

I should mention that if you are using sampling there are data entry tools available from the support line to assist in recording chart details. These are also available in the materials that are handed out at the regional or the state training's and they're on JSI's web site.

So one place or another you can get these spreadsheets to help you record data from the charts.

In some instances you're going to need to deal with exclusions. For example the Pap test says exclude women who have had a complete hysterectomy. And it's unlikely that you will be able to find the CPT code for that in your system.

In those instances it's perfectly fine to address those as they come up. If they come up you will exclude them but note since there is no way of knowing whether how common that Pap test don't go back and try to adjust Column A.

So if in your column - if in your sample of 70 you find one patient with a hysterectomy don't try to adjust Column A by one-seventieth or by one, just leave it as it is.

Under certain situations you may need to pull a larger number of charts to find the 70. So and that's especially with our tobacco users and with our persistent asthmatics.

In those instances you may in fact need to pull say 100 or 200 or with tobacco users in a community where tobacco use is rare, several hundred to be able to go through and identify tobacco users. In those instances what you're going to end up doing is looking at all those who meet the age criteria, finding the persistent asthmatics or finding the tobacco users and then estimating the universe.

Again as I indicated that process is spelled out in the appendix to the manual.

So with asthma, give you the specifics of it because we're seeing this over and over, you would be identifying all patients with a diagnosis of asthma. We suggested randomly selecting 300 patients with an asthma diagnosis and start reviewing charts until you find 70 that are persistent.

Keep track of how many charts were reviewed to find the 70 cases. Then you'll divide 70 by total number of charts with asthmatic patients reviewed to find 70 with persistent asthma. So if you had to review 350 charts or 200, let's make it real, 280 charts in order to find 70 with asthma you now know that

.25%, sorry .25 or 25% of all your asthma patients in that sample had persistent asthma.

To find out for Column A the total number of patients with persistent asthma, multiply the total number of patients with asthma by .25, by 25%. Use this then to estimate the total number in the universe in Column A and then please attach a note on that table when you're entering it in your electronic handbook that you used this mechanism in order to find them.

A couple of references and reminders before we finish and take questions. First, UDS support training web site does have the Clinical Measures Data Entry Tool, does have the UDS Reporting Instructions, does have the prerecorded module that was done last month on clinical reporting and then of course you can look at data and reports from prior years also on the web site.

The randomizer web site is listed here. As Charlie mentioned at the beginning there are still 11 in-person training's left that'll be done in January. You can find those at the bureau's web site.

And for help in general remember the 866-UDS-Help will get you to the Help Line people. We have four very experienced individuals there who can answer your questions. And if you've got one of the really bizarre ones and we do get really bizarre ones, they'll forward it to one of us to confirm and answer before getting back to you.

If you're having trouble with logging into your electronic handbook, call the HRSA web site but if - sorry, the HRSA Call Center but if there is something when you go online January 1st about your profile that looks wrong, for example it says you have a public housing program but you don't know

anything about that, call the BPHC Help Line. They can make sure that if there's anything in your profile that's inaccurate it can be corrected.

As obvious data entry is through the electronic handbook. It begins January 1st. And your report is due February 15th.

Between February 15th and March 31st you'll work with your reviewer to identify any potential problems and correct them so that by March 31st we have a final complete and accurate report for your program.

Then by summer you should be able to get feedback reports that show your trends, that show roll-ups for the states and the nation and that show the Performance Comparison Reports. These final data can be used for internal QI initiatives as well.

Finally, just some things to note in general, work as a team. The tables are interrelated. I said Table 6A is not part of this process but you do report how many hypertensive's or diabetics you have on Table 6A. Check that with what you see on Table 7 and make sure that you're looking at the same world. They won't be the exact same numbers because the criteria are different. But they should be similar.

Make sure you're following the definitions and the instructions. Read the manual carefully. If necessary make sure that the criteria that your vendor used is the same as the EHR, sorry, as the EHB criteria as the bureau criteria.

Check your data before submitting it. And then once your data are submitted work with your reviewer in making the changes that are required before you are done with the - with your UDS Report.

So with that let's throw it back open again to questions. We'll ask (Jillian) to summarize questions that have come in.

And then (Chris) if you want to just mention again briefly what people need to do in order to call in questions, we'll go forward.

Operator: Absolutely, thank you sir. Ladies and gentlemen over the phone line if you'd like to register for a question please press the 1 followed by the 4 on your telephone.

Art Stickgold: And (Jillian).

(Jillian): Yes. So we have had several questions about the IVD measure. One, how best to identify the universe and what - is there any suggested sort of ways to go about identifying that because codes are not specifically provided?

Art Stickgold: Well there are codes in the manuals for IVD. The problem is that we don't have very many patients who meet those codes and the other part of the IVD measure, finding individuals who have had bypasses or stents. Those are - again codes are provided and V codes are provided in the manual which are history of stenting or history of bypass or history of myocardial infarction. The problem is identifying those.

We suspect that once patients have one of these events they tend to spend more of their time with their cardiologist and may not be in the clinic's population any more.

But we simply don't know what's going to happen. The ischemic vascular disease codes are in the manual but we've had quite a few doctors indicate to us that they rarely if ever use those codes.

(Jillian): Okay. And the other question on that line of questioning was is it acceptable to use a sample generated universe as described on Line 43 for the IVD measure?

Art Stickgold: I'm sorry that I don't know what Line 43 or...

(Jillian): No, Slide 43. So as described for asthma.

Art Stickgold: Oh is it possible to use that same process to...

(Jillian): Yes.

Art Stickgold: ...go through. I don't know what the universe will be that you'll do. I would hate to think if anybody's reading charts looking for their patients with heart attacks. It's just not going to go there.

So if there is an alternative mechanism for finding them I would suggest calling the Help Line specifically so we can address it. We have not figured out another way to identify those post-surgical, those post-hospitalization individuals.

(Jillian): Okay. Our next question is if a patient is on chronic asthma medication for a diagnosis of persistent asthma then the patient still has persistent asthma but it's in control.

So would the diagnosis of persistent asthma continue to be coded and therefore that patient continues to be counted in the universe?

Art Stickgold: The patient would be coded in the universe. And as we've said the persistent asthma diagnosis is going to be tricky. It need not have been made during 2012. In fact it is highly likely that the diagnosis will have been made in an earlier year.

The patient when seen is still going to have a ICD-9 code for asthma. But since there is no way of looking at an ICD-9 code to determine whether the patient ever had persistent asthma, we have to look at the chart itself.

And yes, if they're - they have asthma as a diagnosis. And they were initially diagnosed as having persistent asthma, they're in the universe. And the fact that they're taking their medication or at least having those medications prescribed to them, means that that patient is in compliance with the measurement.

(Jillian): Great. The next question is can the same sample be used for tobacco assessment and tobacco cessation intervention?

Art Stickgold: Well what we've suggested is they can start together. We're suggesting that you pull a sample of 3 or 400 patients who meet the age criteria which is the same for both and the number of visits criteria which is the same as both. And start going through it.

The first 70 charts that you look at you'll assess for whether or not they had their tobacco use assessed. And that will answer measure G1 assessment.

At that point you'll have noted that some of them are tobacco users and some are not. Those that are tobacco users put aside and you can use them for G2 for the question of whether or not you have intervened with them but you'll

have to keep on looking at charts far beyond the first 70 to find the total of 70 tobacco users.

So yes, you can start with the same sample. Use the first 70 for G1 and then continue on to get 70 that you'll use for G2.

(Jillian): Great. The next question that we have is for coronary artery disease. One of the exclusions is described as individuals with an allergy to or a history of adverse outcomes from or an intolerance to LDL lowering medication.

Would you consider that individuals with (similar) disease and/or alcohol abuse would have an adverse reaction to the statin?

Art Stickgold: I will now admit with pride to being a research methodology and having absolutely no clinical response to that question.

(Jillian): Okay.

Art Stickgold: If your clinicians indicate that that would be a counter indication to the taking of the medication then I think they're probably going to be patients who will be excluded from the universe. But that requires a clinical judgment, not a research methods judgment.

(Jillian): Okay. The next question is what if you can't get the data because the patient refuses to report information such as patients who refuse to identify their race or gender?

Art Stickgold: For race and gender that's easy because one of the choices is race refused and another one - while we don't have gender, gender refused for Pap tests is

going to happen so extraordinarily infrequently that that can go onto our question of stump the arts.

And I would just go right ahead and feel free to delete them from that particular measure and assume that you've got the only one in the country. But if another exists they can delete it too.

(Jillian): Okay. And then this is a recap of one of the - one of your last slides.

But say - someone asks, can we simply take a random number and review every 10th chart from that number?

Art Stickgold: You can pick a random number and review every 10th chart if the total number of charts that fit the criteria is 700. You can pick every 20th chart if the total number that meet the criteria is 350 or 1,400.

The point is that the interval between the charts has to be the total number that meet - the 70 divided by the total number that meet the criteria. Otherwise you will heavily oversample the frontend of the chart - of the list.

And then if the list is in some nonrandom order you may introduce a nonrandom variable. For example if Site A is at the beginning of the list you'll have a problem or if women are at the beginning of the list followed by men or if it's in age order or even alphabetically you could influence it.

So choosing the interval is - must follow the process that we outlined in the slides here. But yes, the general question is you can start at a random spot and then sample every (nth) case as long as (N) has been calculated correctly.

(Jillian): Good. Now if (Chris) has anybody on the line, I think we can go to them.

Operator: Thank you. We do have a question from the line of (Nada Pariallania), pardon me. Your line is open. Please go ahead.

(Nada Pariallania): Hi. Sorry, actually you actually did answer my question about the tobacco users of how to generate the universe for that.

But I also had a question which I always - I don't know how to handle. So for the birth weight and we ask about the race for the baby, sometimes it's hard for us to find a - the race of. We know the mother's race but sometimes it's hard for us to determine the father's race.

So for example there is one patient that didn't know who the father was. So do we just say unknown for everything? I...

Art Stickgold: For race anytime that you're...

(Nada Pariallania): For the baby.

Art Stickgold: Yes. For race, anywhere it appears in the UDS including the race of a baby or the race of - if that baby becomes a patient then the race of the patient, it's something that somebody themselves annunciates.

If the patient says I don't know the race, you can check refuse to report. And refuse to report is one of the options.

But I wouldn't automatically go to refuse to report. If in fact the mother wants to list that child as a certain race that would be the mother's prerogative.

(Nada Pariallania): Yes. We weren't sure because we've also been told that we should use the mother's race if we don't know the race of the baby.

Is that correct or should I...?

Art Stickgold: That maybe an internal policy. That is not something that BPHC tells you to do.

(Nada Pariallania): Oh okay.

Art Stickgold: And we don't know your community.

(Nada Pariallania): Oh okay.

Art Stickgold: In your community that may be a great answer and others it may not.

(Nada Pariallania): Okay. And I had another question in terms of the general - the universe for example. So we do have contractors.

So what is the best way to get that - so do we just get let's say we have all of our universe and then we have one extra contractor. We add that contractor like a random - of our list of the main universe and then we do the randomizer. Is that an appropriate one?

Or do we do it how you said proportionately so if they proportionately based on like 25% of our - all of our patients then do we just ask them to do 25% for all of the - like Table 6B and 7? Do we do it that way? I wasn't sure how would be the best way to (unintelligible) most correct.

Art Stickgold: In cases where we've worked with this we've looked at the individual variables. And I have to tell you that it is difficult.

But for example on Table 6A you have an indication of how many patients might meet the hypertension criteria. And if you have that for you and you have that for your contractor and you must because they have to report it to you.

(Nada Pariallania): Yes.

Art Stickgold: Then you could use that to figure out what portion of the hyper-tenses would be in a sample that your contractor worked with and it might be a different portion for diabetes.

And then for 2 year-olds it might be for example if this was an organization with a homeless contract that your contractor had virtually no 2 year-olds and all of the 2 year-olds would come from you.

So again it has to be on a measure-by-measure basis. If you're going to...

(Nada Pariallania): Okay.

Art Stickgold: ...distribute a sample.

(Nada Pariallania): Okay. Okay, that's it. Thank you so much.

Art Stickgold: Very good.

Operator: Thank you. And we have no further questions over the phone line at this time.

Art Stickgold: Okay. Well if there are no further questions let us somehow both thank you for participating in this. Wish you all a happy holiday season and hope that all of you spend between now and January 1st working hard on your UDS Reports so that you'll be able to get them in immediately.

We will be in touch with you February 15th to begin working on the reviews of the UDS.

Thanks a lot for participating.

END