



# Surveys on Patient Safety Culture™

## **Best Practices for Web-based SOPS Surveys June 12, 2019 – Webcast Transcript**

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### **Presentation:**

**Theresa Famolaro**

***Famolaro (opening), Slide 1***

Best Practices for Web-Based SOPS Surveys. My name is Theresa Famolaro, and I'll be your moderator for today's webcast. I'm a Senior Study Director at Westat and a database manager for the contract that supports the AHRQ SOPS surveys.

***Famolaro (opening), Slide 2***

Before we begin, I just have a few housekeeping details to go over. If you're having difficulty hearing the audio from your computer speakers, you can switch the audio selection by having WebEx call you at a phone number you provide, and you can connect through your phone. In the event that your computer freezes at any point during the presentation, you can try logging out and logging back into the webcast to refresh the page. Remember, though, that you may just be experiencing a lag in the advancement of the slides due to your internet connection speed. If you need help at any time during this webcast, use the Q&A icon to ask questions or request help.

***Famolaro (opening), Slide 3***

At any point throughout today's presentation, if you have any further technical difficulties or have a question you'd like to ask our speakers, you may ask a question through the Q&A feature. Depending on the browser you're using your WebEx screen may look slightly different than this slide, but look for the Q&A icon and be sure that the drop-down option displays "All Panelists" for you to ask the question so our team can see it.

Today's session is being recorded and a replay of today's webcast will be available on the AHRQ website.

***Famolaro (opening), Slide 4***

I'm really excited to introduce our speakers for today. We are very pleased to welcome Caren Ginsberg, who serves as the Division Director for the Agency for Healthcare Research and Quality, worked on the Consumer Assessment of Healthcare Providers and Systems, also known as CAHPS, and the Surveys on Patient Safety Culture, also known as SOPS. An anthropologist and demographer, Dr. Ginsberg has broad-based experience in patient experience, patient safety, and public health. In her position at AHRQ, she focuses on program development, implementation, operations, and evaluation with specialty in survey design in development and qualitative evaluation and assessment. Previously, she held positions at the Centers for Medicare and Medicaid Services, Westat, and the National Quality Forum.

I'm also pleased to have my colleague, Naomi Yount, who is a Senior Study director at Westat, and an industrial organizational psychologist with more than 15 years of experience in organizational research and analysis. Dr. Yount has been involved in developing the database reports for AHRQ Surveys on Patient Safety Culture. She has worked extensively in analyzing and exploring data from the Hospital, Nursing Home, Medical Office, and Community Pharmacy Surveys on Patient Safety Culture, and she also conducted the psychometric analysis for these surveys. Dr. Yount is working on updating the Hospital Survey on Patient Safety Culture to create version 2.0 and recently worked on the development and release of the Health Information Technology Patient Safety Supplemental Item set.

As I mentioned earlier, I am Theresa Famolaro, and I'll be serving as your moderator and speaker today.

***Famolaro (opening), Slide 5***

Here's our agenda for today's call. We're going to start off with Dr. Caren Ginsberg giving an overview of AHRQ's perspective on the importance of survey methods. Then next, I'm going to describe best practices for designing and testing a SOPS web-based survey. Then, I'll pass things over to Naomi, who will walk us through how to administer a SOPS survey and analyze our results. At the end of the presentation, we look forward to answering your questions.

Thank you so much for joining us today. We're really excited to get started, so next, I'm going to pass things over to Caren.

***Caren Ginsberg  
Ginsberg, Slide 6***

Hi, good afternoon, everyone, and thank you for joining this webcast. I'm Caren Ginsberg, and before we get to the heart of this webcast, I just want to talk for a few minutes about why we're even talking about this issue. Why is talking about survey research methodology and data collection methodology important to AHRQ and to the work that you all are doing?

***Ginsberg, Slide 7***

The Agency for Healthcare Research and Quality is a research and science-based agency, part of the U.S. Department of Health and Human Services. We focus on developing and supporting tools and other products using evidence-based practices and best methods. We develop these tools and these other kinds of products to measure the progress of the U.S. healthcare system and improve healthcare nationally. The Surveys on Patient Safety Culture Program develop and support, as you know, state-of-the-art surveys to measure patient safety culture in a variety of facilities. These tools are validated, and they use the best methods available for their development and testing. Here's the heart of why we're really talking about this today. These state-of-the-art survey tools are really only going to be as good as the data that you collect based on the data collection method that you're choosing. We want to make sure that you understand what some of the best practices are in data collection so that you can produce data that will help your organization obtain more meaningful information for your patient safety improvement program.

***Ginsberg, Slide 8***

Web-based surveys are pretty popular right now, and web-based surveys are used a lot in the collection of SOPS data. There are other ways that they can collect data. Some SOPS data are collected using a paper and pencil. Phone is not used all that much for SOPS data. These older methods, these traditional methods such as phone or paper and pencil or hard copy, they're generally seen as slower or less current methodology or more expensive or more cumbersome to use. However, web surveys have their own issues to consider too.

***Ginsberg, Slide 9***

A web-based survey, we found out, has generally lower response rates. We see this in all kinds of different kinds of surveys, that they're generating lower response rates. There are some difficulties with the formatting and consistent formatting that's making it difficult to answer consistently, and it can be complicated to reach potential respondents for a web-based survey. Those are some of the things we're going to talk more about today, but just to set the stage for this talk.

**Ginsberg, Slide 10**

Who should attend this webcast? If you're in a facility and you're developing, and programming, and administering a SOPS survey, you'll find information today useful. If you're a survey vendor, we think you'll find the information to be useful. If you're using a web-based survey or mail or a paper-pencil survey, you'll find the information today to be useful as well.

**Ginsberg, Slide 11**

We think this is going to be a broad-based presentation regardless of the data collection method that you're using. The webcast today is going to help you understand what the best practices are in survey data collection related to the SOPS surveys. Whether you're using a web-based methodology or something else, the webcast will help you choose whether or not to administer survey by a web-based methodology. It will help you program and administer a web-based survey using the state-of-the-art best practices, and it will also help you plan for submitting your data to the AHRQ Surveys on Patient Safety Culture Voluntary Databases.

I'm going to turn this back to Theresa to lead us with the rest of the program. Thanks again for attending.

**Theresa Famolaro****Famolaro, Slide 12**

Thank you so much, Caren. Again, my name is Theresa Famolaro, and I'm going to be speaking to you today about web-based SOPS surveys. Before we go on, I just want to clarify that the best practices we're going to be speaking about today is really meant for SOPS surveys. There are other methods for designing web-based surveys, but they may be different depending on the type of survey. When you're looking or you're reviewing this presentation, I would just have you think about the fact that you're looking at web-based best practices for SOPS surveys.

**Famolaro, Slide 13**

As you know, AHRQ does not supply a web template for the SOPS surveys, but as Caren mentioned, we really anticipate that vendors and others will continue to offer web versions for all of the SOPS surveys. We just expect that they'll just be increasing in their use. On this particular slide, we show the use of web to administer the SOPS Hospital Survey over time from those organizations that submitted to the SOPS Hospital Database. In 2007, there were only 25% of hospitals that administered that hospital survey by web versus 83% in 2018.

It's not on this slide, but I also want to point out to you that this also applies to our other SOPS surveys settings. For example, for the Medical Office Database, in 2011, there were 63% of medical offices in the database administering by web compared to 86% in the 2018 database. Then, in the Nursing Homes SOPS Database has the lowest percent administering by web, whereas in 2011, there were only 12% and in 2018, they're at 43%. I would just also mention that the Community Pharmacy Database has always had over 90% of sites administering by the web.

**Famolaro, Slide 14**

As Caren mentioned again as well, web-based survey response rates are not as high as paper-only mode. You can see here from our most recent databases, the response rates are the lowest for the Hospital and Nursing Home Surveys that are administered by web. This is really a consistent finding among other types of surveys. For example, a Minnesota study of CG-CAHPS in six clinics compare results from surveys administered by the web and those that were mailed, their paper surveys mailed. The response rate for the mail administration was 33% compared to web at 14%.

**Famolaro, Slide 15**

In 2017 and 2018, we did conduct a pilot test of the Hospital Survey for version 2.0, and we also compared it to the 1.0 survey. What we found was that very few of our respondents were using a mobile device such as an iPhone or ever used a mobile device during their entire survey administration period, or they went in multiple times. So, we really expect that most hospital providers and staff will use a computer to answer at least the Hospital Survey, and we anticipate that most of our surveys because they are taken directly in the facility, will continue to be done at their computer.

**Famolaro, Slide 16**

You want to do a web survey. Okay, so before you choose your survey mode, you really should ask these questions. What mode has your organization typically used for provider and staff surveys? Has it been web? Has it been paper? Has it been mixed? You really want to assess and see if your organization typically does this. Then do the majority of providers and staff in your organization or in your facility have email addresses and access to computers? Obviously, this is essential for deciding if you can do a web survey.

**Famolaro, Slide 17**

Let's just say you chose to administer or you decided to administer your SOPS survey by web. Well, you have to make some decisions here, further decisions. If you have corporate capabilities with web survey software and the ability to analyze your survey data, you may decide to administer the survey in-house. However, if you need help doing that, you may choose to hire a vendor. I would just say if you hire a vendor, make sure that vendor is using a SOPS survey without changes. Whether you program it yourself or you use a vendor, we would also ask you to review the SOPS user's guide on best practices for SOPS web surveys.

Next, you'll have to decide on who you want to administer the survey to. Do you want to include a census of providers and staff that means everyone in your facility or just a sample? We also recommend that you include providers and staff who regularly work in your organization, and have worked there at least six months. Make sure to include physicians and temporary staff who regularly work in your facility.

**Famolaro, Slide 18**

Now, we're going to talk about providers and staff list, which are really important for any type of a survey whether it's web or paper. First of all, it's important that your provider and staff list are up to date. For web surveys, it's really important that you have up-to-date email addresses. Review your list. Make sure that everything is up to date, eliminate duplicate names and emails, and if individuals are no longer with the organization, you should also remove them from the list. We've actually, in some of our pilots, seen some of these lists, and we've definitely come across a lot of duplicates probably because people are just exporting it from their HR system.

Make sure your list only includes providers and staff that are working in that specific physical location you're surveying. For example, sometimes, and I've seen this, a hospital list may include providers and staff who work only in outpatient locations. In that case, you should just remove those staff and providers that do not work in the hospital from your list.

**Famolaro, Slide 19**

Here's another slide that can actually apply to web or paper. We definitely recommend that you administer any of our SOPS surveys every 18 to 24 months so that you have enough time for patient safety improvement activities to sort of take hold in your facility. We noticed that for this 2018 Hospital Database, the training hospitals, they administer it on average every 25 months. So, our 18 to 24 months really is in close range to that.

Consider when you do send out your invitation or when you're doing your planning, linking your patient safety survey to, for example, an event such as March Patient Safety Awareness Week. Then, we also recommend that in your planning, when you're planning on administering your survey, that you administer it before the SOPS database submission date. Organizations can submit the data themselves, or your vendor can submit on your behalf. Just be sure to tell your vendor ahead of time that you want them to submit your data.

As an aside, the Ambulatory Surgery Center Database is open now, and you still have time to administer your SOPS ASC survey and submit it to the database. The Medical Office Database will be opening later this year in September, and the Hospital and Nursing Home Databases will be opening next year in 2020.

**Famolaro, Slide 20**

Now, we're coming to the big point, or one of the big points of this webcast, which is formatting your SOPS web survey. Here we present to you what we call a grid format. In this example, you're going to see items A1 through A6 in the SOPS Hospital Survey. In a grid format, all of these questions or items have the same response option such as strongly disagree, disagree, et cetera.

### ***Famolaro, Slide 21***

What's so special about using a grid format, especially for SOPS surveys? Well, using a grid format allows respondents to complete the surveys faster, and also takes less space on your screen. You can imagine with busy healthcare professionals, saving time is really important. We think that this grid format helps with that.

When using grid format, we recommend a limited number of questions per page, so that response options display without scrolling. Then, respondents are also helped to identify the different questions by using shading on your grid. Lastly, we recommend numbering the questions in the grid so that users can identify the different questions.

### ***Famolaro, Slide 22***

Here is what we call a correct example of a grid format. We would want it to look like this. As you can see in this example, the response options of strongly agree, disagree, et cetera, are evenly spaced, which means the columns are about the same size. We have numbered each item or each question, as you can see on the left, and we have included shading so that respondents understand that there are six questions to answer in this grid.

### ***Famolaro, Slide 23***

This is what we don't want you to do. This is an incorrect example of a grid format. I don't know about you, but I find this very hard to understand. Really, as a respondent, I'm not sure where to start.

### ***Famolaro, Slide 24***

First of all, the response options are not evenly spaced. Look how wide the strongly agree column is.

### ***Famolaro, Slide 25***

Next, the questions are hard to identify without shading or numbers. Also, there are too many questions on the grid so that when you vertically scroll, you may not see the response options, and the grid is also very wide so that you may have to horizontally scroll and not see the question.

### ***Famolaro, Slide 26***

What if your organization or your vendor cannot program a grid? Well, we recommend that you use a single-item format with vertical response options. In a single-item format, each item is a stand-alone question with its own response options.

### ***Famolaro, Slide 27***

What's the advantage of using a single-item question on SOPS surveys? Well, first of all, single-item questions are much easier to read on mobile devices such as smartphones, and if you program the questions originally in a grid format, most web survey software packages will convert your grid questions into single-item questions.

### ***Famolaro, Slide 28***

Let me share with you an example of how grid questions on a computer may turn into single-item questions when using a mobile device such as a smartphone. On the top screen, you see the example of the grid, and in the bottom part of the screen, you see the example that's on the smartphone. If you have six items in your grid as shown above, some web survey software, as I said before, will vertically display the six items on your mobile device. This is also one of the reasons we recommend not putting more than six items in your grid so that respondents do not have to do too much scrolling.

### ***Famolaro, Slide 29***

Here is a correct version of a single-item question. Here you see all the response options in a single column.

### ***Famolaro, Slide 30***

And, here's an example of an incorrect format of a single-item question. In this example, the response options are in two columns, which makes it very difficult for respondents to read and complete on smartphones. I would also point out that the response options here are also bold, so it's really difficult to distinguish the response option from the question text. I haven't spoken about this yet, but this example also did not provide a back button for respondents to go back and review their responses or make changes to a previous question.

**Famolaro, Slide 31**

I have touched on scrolling a little bit so far in this presentation, but here I'll just give it a little bit more emphasis. First of all, please avoid all horizontal scrolling. That is left to right, right to left scrolling. It's really frustrating for respondents because they can't see the content, and they also too may break off because it's so frustrating. On SOPS, there will likely be some vertical scrolling. For example, on some of the demographic questions like staff position or unit, there will be some vertical scrolling.

If you use a mobile device, there's likely to be some scrolling. Our recommendation is that you avoid too much scrolling. You can do this by programming the survey in small sections with a few questions at a time. Then also too, don't forget to consider your mobile users by not displaying too many items on a page.

**Famolaro, Slide 32**

We're going to talk here about dropdown boxes. I would just say right out, let's avoid dropdown boxes. First of all, the reason is as a respondent, they have to take too many steps to answer a single question. For example, first they have to read the question, then click on the dropdown box, then they have to look for their answer, and then they have to check their answer.

Dropdown boxes are also really difficult to use on mobile devices. For example, look at the screenshot on the left-hand side. This is an example of a dropdown box on a smartphone, compared to the screenshot on the right, which is the exact same question on a computer.

**Famolaro, Slide 33**

Instead of dropdown boxes, we recommend you use single-item questions with radio buttons. Respondents can see which answer they chose, and if they want to change their answer, it's just much easier to do so. They can also see all of their response options all at the same time, so nothing is hidden.

**Famolaro, Slide 34**

We'll give you some other web survey tips that you should consider for SOPS. First of all, program the survey so that respondents can decide to skip a question if they choose to do so. That is, they don't have to answer every single question. This is similar to what we do on the paper survey. On a paper survey, no one is forced to answer every question.

As you know, the SOPS surveys are voluntary, and respondents who choose to take the survey may decide to skip a question for many different reasons. So, just allowing them to skip questions or not answer questions helps them to feel more comfortable in responding to the survey.

**Famolaro, Slide 35**

Here's some other tips. When programming your survey, make sure that respondents have previous and next page buttons. This allows respondents to go back and review their answers or go ahead and see what's next. It gives them a lot more freedom when taking a survey. And, always, I can't stress this enough, provide a thank you page after the survey is submitted. In this way, respondents know that their survey was received, and it really acknowledges their effort in completing it by your organization.

**Famolaro, Slide 36**

Now, we're going to switch things up a little bit. Let's say that you or your vendor have programmed your SOPS survey. The next step in the process is testing your SOPS web-based survey.

**Famolaro, Slide 37**

The first order of business for testing your web survey is checking the content. Make sure that the question text and response options match the printed version. Really look for typos, and we recommend that you print out a version of the survey from the AHRQ website and compare it to your version on the web.

You may also consider a second person. In fact, I would definitely recommend this that you absolutely consider a second person to check your web survey against the printed version for quality control. I found this in my own personal experience, and it definitely, definitely helps.

**Famolaro, Slide 38**

It's really important to remember that not everyone uses the same internet browser, even within the same organization or the same device. We know most people take it on computers, but there are different screen

sizes to computers, and then, of course, the many different mobile devices. So, when testing your web survey, we recommend that you test it on different browsers and devices to ensure that the survey displays properly on each of those devices and browsers. You can see here on my screen, on the left, we tested it on a computer, and then here to the right, you see the same survey tested on a smartphone. We just want to make sure that nothing gets thrown off, there isn't any weird formatting, and that we can read it.

### ***Famolaro, Slide 39***

Next, it's really important to ensure that your web survey is capturing the survey data accurately. First of all, you're checking the content. You're checking the screens. You're checking the browsers. Now, you have to check the data because that's what you're going to get out and analyze with. We really recommend completing enough sample paper surveys that include all the response options to each survey question and then answering them into your web survey.

One way that we do it here is we take the web survey, and then we just go through, and we check the first answer on each question. Then, we go through, and we check the second answer on each question for a second survey, et cetera until we have all the response options checked. Then, that could be a stack of surveys that we just enter into the web survey platform. Then, next what you should do is to export the data to see that the answers that you wrote on your paper match the question numbers and responses that you entered into the web. You want to just make sure everything is coming out correctly.

### ***Famolaro, Slide 40***

Lastly, we just want to make sure that you confirm that the web survey hyperlinks work for all providers and staff throughout the facility. For example, and we've seen this, a manager may be able to open the web survey hyperlink at their desk in their office, but staff and providers at their workstations cannot open the same hyperlink or the same customized hyperlink.

If you're using a vendor, we also say that make sure that the vendor emails get through to providers and staff. As always, make sure the hyperlinks work. If you're using a vendor, you can ask them to send you a beta test link so that you can check the email and check the hyperlinks throughout your organization to make sure it gets through your firewall.

I think that's the end of my set of the presentation. I'm going to pass this over to Naomi Yount, who's going to talk about fielding your SOPS survey.

### ***Naomi Yount Yount, Slide 41***

Great, thanks, Theresa. Now, we've learned about designing and testing the web survey. I'm going to talk with you about best practices in fielding your survey.

### ***Yount, Slide 42***

First, you want to promote the survey. This is really true if you're doing a web survey or a paper survey. You want to publicize it and get the word out. You can do this by posting fliers or posters throughout your facility. You can send emails with letters of support from leadership, or have the email come directly from somebody in leadership vouching support for the survey.

You can also post information on your intranet. A nice idea is to make it a standing discussion item in your staff meetings both before the survey is fielded and during the survey fielding. Get creative. The idea is to make sure that everyone knows that the survey is coming, and the survey is live when you have to open it up.

### ***Yount, Slide 43***

Some things to include when you're promoting the survey, first and foremost, you always want to include the purpose of the survey. You want to make sure they know why you're asking them to take the time to complete the survey. You also will want to tell them what you're going to do with the data. For example, you could say, "We're going to use this data to improve patient safety culture."

### ***Yount, Slide 44***

Another good thing to include would be assurances that only summary or aggregated data will be reported. You're going to use the data for improvement purposes, and you're not going to do anything at the individual level or try to identify anybody's responses.

As Theresa mentioned, you might want to use a vendor, so you should let them know in this promotion who the email will be coming from. If you're doing it in-house, what email will be sending out the invitation? Maybe you create an email just for sending out the web survey, or if you have a vendor, who is the vendor, and what email address will be coming through.

Also, to boost response rates, you might consider using incentives such as raffles or pizza parties. In your promotional materials, you might want to let them know, "Hey, the site or the unit that has the best response rate will get a pizza party."

#### ***Yount, Slide 45***

Another decision you'll have to make is if you're going to make your survey confidential or anonymous. A confidential survey allows survey administrators to link survey response to the participant. While they can link the survey response to the participant, a confidential survey will make assurances that they will not release that identifying information to anyone. If you have it in-house, you might say the systems person is going to have that that will de-identify it once the data is exported, and if you're using a vendor that will help assure that the identifying information will not be shared. An anonymous survey has no identifiers to link survey response to participants, and so there is no way that you could identify that person's response to the person.

#### ***Yount, Slide 46***

Let's talk about some pros and cons of confidential and anonymous because they have some. The first is in a confidential survey because you can tell who has responded, you only need to send reminders to non-respondents. In an anonymous survey, you have to send thank you/reminders to everyone. That's because you don't know who has responded. The con of doing this is that people can get confused. "Why am I getting another reminder about this survey?" And, they might contact you and say, "Did you get my survey? I thought I had done this already." So, it's really important in wording your reminders to say thank you if you've already done this, and if you haven't, we encourage you to submit.

A confidential survey also allows for partial survey completes. For example, if you have a nurse who is really busy, and starts the survey and has to walk away and then forgets all about it and the survey fielding period closes, you at least have all the responses to the questions that he has answered. In an anonymous survey, if he walks away, that's it. Nothing is saved, and so you lose all of those responses.

That is because in a confidential survey, they're saving those responses, and it's linked to a person so they can go back in and complete the survey in multiple sittings. If that nurse gets the reminder and says, "Oh, yeah. I'll go back and take the survey," he can start off exactly where he left off the last time. Again, in an anonymous survey, they would have to complete the survey in one sitting.

In a confidential survey, you can have unique customized hyperlinks for each respondent, or you can have a login or password. In an anonymous survey, you just have one link, so it makes it a little bit easier having an anonymous survey because you just have the one link to go out versus having some sort of mail merge and making the right link go to the right person. In a confidential survey, respondents may feel the responses could be identified. Because there is a link between that person and the response, you will want to make assurances that it will not happen. An anonymous survey, it has greater assurances of anonymity.

#### ***Yount, Slide 47***

All right, overall, this is what your survey administration would look like. You would send out a pre-notification email. Then, you have your email invitation, a series of reminder emails, and then you'll close your survey. Let's talk about each one of these.

#### ***Yount, Slide 48***

In your pre-notification email, and, in fact, in every correspondence, you're going to want to provide the purpose of the survey. The pre-notification email can include a letter of support from senior leaders and let the staff know that the survey is coming. You'll want to send this just a few days before releasing the survey invitation, not too long that they'll forget about it, and not too short that they won't have a chance to read it. Again, if you're using a vendor, you're going to want to let them know who is sending the survey email invitation.

#### ***Yount, Slide 49***

The survey email invitation, you're going to see this a lot, provides the purpose of the survey. Again, in every way you can, you want to make sure staff know why you're asking them to complete the survey. You're going



to indicate whether the survey is confidential or anonymous. Be upfront about it because they can tell from the link in the survey. If the survey is a generic link, they'll know it's anonymous, and if it's a personalized link, you're going to want to let them know not to forward that email to anybody else because that email and that link is linked to them. So, if somebody else were to go in and take that survey with their link, they would not be able to take the survey without contacting you.

Of course, you'll include the link to the survey. In your email, if you know that some staff don't have access to computers, you can say, "Hey, we know you don't have easy access to computers, but we've made this bank of computers available to you." Or, you can let them know in the email if taking it on the computer won't work for you, you can come to this office and pick up a paper survey. So, you can give them that option as well.

#### ***Yount, Slide 50***

Then, every week, you would send out a weekly reminder. We recommend about a four-week fielding period for the data collection. In those reminders, again, you're going to thank staff if they have already completed the survey, and encourage non-respondents to complete the survey. While I said that a lot for anonymous surveys because you don't know who's completed it. It's also good practice to thank staff for confidential surveys. Even though you're only following up with non-responders, there could be somebody who completed it right before you sent out that email and they get the email saying, "Please complete the survey." You just want to cover your bases there. Of course, please always include the purpose or the importance of why you're asking them to take the survey.

#### ***Yount, Slide 51***

During the fielding period, you'll also want to monitor response rates. Response rates are the number of people completing the survey divided by the total number of staff invited to take the survey. What's great about a web survey is that you have those response rates right at the tip of your fingers. Unlike a paper survey where you have to receive them in and track them, in a web survey, most web survey platforms will automatically calculate response rates based on the number of cases they have and who has hit submit on the survey.

You can disseminate this out in staff meetings or disseminate out to sites or units. You can encourage some friendly competitive spirit to help boost response. You might do something like, "Hey, site number one, you have an 80% response rate. Way to go." Then, encourage site four to try and catch up with site three. If you have low response rates or you're below your goal, you might consider extending the field period. In this example we see, with site one being at 80%, you might say, "Okay, it's been four weeks. We're going to close the survey administration period for site one and site two, but leave it open for site three and four," in hopes that you might boost that up above 50%.

#### ***Yount, Slide 52***

Once you've closed data collection, you have to clean and analyze your data. Another benefit of web surveys is that the data are relatively clean meaning you don't have to worry about out-of-range responses or those that don't fit into like if you get a 10 as a response because of a data entry error. You don't have to worry about multiple choices selected like we see sometimes on paper surveys where somebody selects strongly agree and agree, and you're not quite sure how to code that.

While the data come out relatively clean, there are a few things that you'll want to do before you analyze your data. The first thing is you want to remove blank cases. Somebody might go into the web survey, and just run through the survey to see what the questions are all about and not answer a single one, or they might just answer some of the background questions. If that's the case, we recommend just removing those cases from your analysis dataset.

You'll also want to consider recoding the does not apply/don't know responses, so they're not included in your scores. For example, if you have strongly disagree coded as a one, and strongly agree coded as a five, and you code does not apply or don't know as a nine, you might consider recoding that nine to a missing for your analysis in calculating your percent positive scores.

The percent positive scores are basically those who answer agree or strongly agree on positively worded items out of everybody who answered the question validly, meaning between strongly disagree and strongly agree. Again, we wouldn't count people who left the question missing or answer does not apply or don't know.

You would calculate your percent positive scores for the items, the composite measures, and break out by some of the background questions, for example, staff position or work area unit.

**Yount, Slide 53**

Then, you get into analyzing your survey data with the calculating of scores, and we have some detailed instructions in the survey user's guide. I know Theresa mentioned it earlier, and it's a really great resource for even programming your survey, going through survey administration, and data analysis and cleaning. We have this specifically for each setting, so it's specific to each survey.

AHRQ also has the SOPS Data Entry and Analysis Tool. Again, this is for each survey, and it's an Excel-based tool, which allows you to enter your clean data and automatically calculates your scores. It's really at a click of a button, so it's super easy, and it enables comparison of your scores to the most recent database report results.

**Yount, Slide 54**

In addition, and as Theresa mentioned, we have the SOPS databases. There are four currently: Hospital, Medical Office, Nursing Home, and Community Pharmacy. These are facilities that have voluntarily submitted their data for patient safety improvement purposes. Our largest database to date is the Hospital Database, which has 382,000 respondents, and, our newest one, which is open right now, is the SOPS Ambulatory Surgery Center Database. It is open through July 22nd, so we do encourage you to submit to this database. It's the newest one, and we're very excited to see what comes of that one.

**Yount, Slide 55**

Some other resources for you are the research reference list, and this provides citations for published articles that use the Surveys on Patient Safety Culture. We have resources lists which contain references to websites that provide practical resources that you can use to make changes to improve patient safety culture. Last, once you've done your survey, and you want to know what to do, we have our Action Planning Tool.

You can take an initiative you've gotten from the resource list, and this Action Planning Tool provides sort of step-by-step guide for users of the SOPS surveys to develop an action plan to improve patient safety culture in their setting. We also have webcasts and videos on the AHRQ website that provide a lot of rich information as well.

**Yount, Slide 56**

We encourage you to reach out, ask questions. You can reach us by email at [SafetyCultureSurveys@westat.com](mailto:SafetyCultureSurveys@westat.com). We're also available by phone at 1-888-324-9749, or you can go onto the AHRQ website at [www.ahrq.gov/sops](http://www.ahrq.gov/sops). Now, I'm going to turn this back to Theresa, who will lead us through the Q&A portion of the webcast.

**Theresa Famolaro**

**Famolaro (closing), Slide 57**

Thank you, Naomi, very much. Everyone is learning so much. I am always learning something, so this is great. We're going to now switch to the Q&A portion of the webcast, and we're going to basically go through some of these questions. The first question I'll just read off right off the bat is, "Will the slides be made available?" Yeah, the slides and the replay from today's webcast will be made available on the AHRQ website, and we'll send you a message through the SOPS email listservs when the materials are available.

Here's a second question, and I think it's going to go to you, Naomi. "Do we have to develop our own web-based survey if we want to do it electronically or is there an existing survey we can link to or copy?"

**Naomi Yount**

That's a great question. AHRQ currently does not provide web-based survey templates, so your organization will need to program its own web survey or use a vendor.

**Theresa Famolaro**

Okay. Here's another question. On this question, they ask, "We have a fair number of staff without regular access to computers. What should we do to ensure that they can all take the web survey?" Naomi, you want to answer that?

**Naomi Yount**

Sure. If you have staff that don't have an email address or regular access to a computer, you can either make computers available for them and direct staff to them through promotional materials, or you can provide a paper survey, and enter their answers into your web survey after they've completed it. Again, there's more information in our SOPS user's guide that can walk you through that.

**Theresa Famolaro**

Okay. Thank you so much. I think I have one more here that's coming through. "Can we provide work areas or staff positions on the survey? Can we modify work areas or staff positions on the survey?" I'm sorry. I didn't read that right.

**Naomi Yount**

Sure, of course. Your facility may wish to modify the responses to these questions, so they reflect the names of the work units or staff positions that are in your facility. Modifications to this section is acceptable. However, if your facility plans to submit to any of the SOPS databases, you must be able to recode the modified work areas or staff positions, so they crosswalk back to the original survey.

**Theresa Famolaro**

Okay. We have a few more questions coming in, but I just wanted to remind people that they can type their questions in the Q&A box. Here we show it here on the slides. To access the Q&A box, you may need to select the button with the three dots at the bottom of your screen, and select the question mark Q&A for it to appear on the side of your screen. Be sure to send your question to all panelists so that we can see it. Again, depending on the browser you're using, your WebEx screen may look slightly different from this slide.

I think I'll go back and look at our questions again. We have another question coming up. I think I can answer this one. "Our system uses a vendor to administer the SOPS survey, and I don't have control over what the vendor does. What should I do?" Well, first of all, you can request to review your program web survey and request that they make changes if anything is missing or incorrect. You could also send us screenshots of your organization's web survey to the SOPS database technical assistance email box for review before beginning data collection. We do offer the free technical assistance, and we are happy to look at screenshots of your web survey to ensure that it matches our requirements.

Let's see. Here's another one. Okay. Okay. "On a web survey, should we require each question to be answered before proceeding to the next question?" Let's just see. I think, yes. You should not force an answer to every question on your SOPS survey. We recommend allowing respondents to leave some answers blank because staff may not want to answer that question for whatever reason, and they may not know the answer or the question simply just doesn't apply to them. They should just be able to skip the question. Like I said, I think I mentioned this before, paper surveys don't force response to every question, so it's really best to make your web survey comparable to the paper version in that regard, particularly if you're doing data collection with both methods.

Okay. Oh, here's a question for you, Naomi, I think. "When will the Hospital SOPS version 2.0 be available?" This is a little bit off topic, but we're happy to answer it. It says, "We're planning to administer the Hospital Survey this fall and wondered if the updated version will be available."

**Naomi Yount**

Great question. We are currently in the process of finalizing the survey. The goal is to release the survey later this summer. We will also be providing guidance on expected differences in the scores when comparing version 1.0 to 2.0 of the survey.

**Theresa Famolaro**

Okay. Let's see what else is coming in. Okay, so it looks like we have another question. "How can I export my web survey data into the SOPS Data Entry and Analysis or Excel Tool?" Okay, so you can do that. You can program your survey so that the response options and the variable values match the variables and response options in the Excel tool. The Excel tool includes all of the variables in the survey including the open text fields or the other specified sections for, let's say, in staff position or unit/work area, and the comment section.

Users, I think, you should use the same variables and response options for your web survey just to ensure that you can import your data into the Excel tool and then submit it to the SOPS database as well. We've also

posted on the AHRQ website the data file specification for the database that you can use to see the variables and response options that we use here for the database.

Let's see if we have any more questions. I'm going to go up. I think we have answered every question. Let me just double check. Okay. There's another question that we just got in. "How long do you recommend running the survey or keeping it open?" We would say in that regard, we would, I think Naomi had mentioned that, and so I'll let her answer that.

### **Naomi Yount**

Okay. Sure. We recommend about four weeks for the data collection period. However, again, if your response rates are lower during that time or something happens in the interim where you're doing something else or something else happens where you think extending that would be helpful, you can do that as well. About four weeks is good.

### **Theresa Famolaro**

Okay. Okay, so here's another. I would say, "Do you have any recommendation for increasing the response rate for the survey, especially at large hospitals?" I can answer that. Yeah, we did, a while ago, we did a podcast on increasing your survey response, and it's hosted on the AHRQ website. Let me give you some of the examples of things that people were doing. Some of them Naomi mentioned. One is sharing, let's say, your response rate within, if it's in a large hospital, let's say, within all of the departments of that hospital. Then, sharing your response rate results across the unit, so just sort of get that competitive spirit.

Another thing you might consider, and I've heard of this as well, is that on your thank you page, sometimes what people will do is they'll make that part of a raffle. You actually complete the survey. You get your thank you page. Thank you for submitting, and you're able to go and print that out, and then put it in a part of a raffle. So, that's another thing to do.

We've also heard of things like gift baskets or the unit with the highest response rate getting a \$5 cafeteria voucher or something like that. That really, really does increase the response rate. I can't tell you enough how much the reminders and the letters of support from your leadership really, really matter in increasing the response rate. We always see higher response rates, or we always see every time a reminder goes out, the response goes up. It goes up every single time. The letter of support really shows that your hospital's CEO or your leadership really cares about the topic, and wants to hear from staff and providers.

Okay. Okay. Oh, this is a great question. I think Naomi can answer this question. "For individual unit-level or clinic-level results, what is the minimum number of responses that is recommended for reporting data back or discussion with the individual area?"

### **Naomi Yount**

That is a great question, and that's really important for protecting confidentiality. We don't recommend reporting back with less than five within that category. For example, if you have a specific work area, you should have at least five responses from that work area in order to report back. You can do more than that if you feel more comfortable, or if you have a lot, you could say, "My minimum is 10," but we definitely recommend not doing less than five, and not less than three to any particular item. So, hope that answers that question.

### **Theresa Famolaro**

Okay. I think I have another one for you, Naomi. Here is one that says, "Do you have any recommendations for the minimum response rate to be able to consider the results representative or valid?"

### **Naomi Yount**

Oh, that's a tough one. I don't think we would recommend a minimum response rate. Obviously, if you get down to a low response rate, it will not be representative. If you have 10% of all staff responding, that is a sign that you might want to investigate why they're not participating in the survey, and what's going on there. The higher the response rate, the more representative it will be.

We see that on average and, Theresa correct me if I'm wrong I think it's around 50%. You can look at the database reports for your setting. We provide the average response rates of those submitting, and you could make that your goal of at least getting what the average is.

**Theresa Famolaro**

That's right. Okay. Let's see. Okay. Let's just go down a little bit here. Okay. Okay. Okay. Okay, here's a question. "We share staff across many organizations, sometimes 50% and 50%. How should we direct them to fill out the survey?" Okay, so I'm glad you're asking that question because we get that question a lot. We basically say as part of your instructions, to have them answer the survey based on one of the facilities they work in. They should only answer for one facility. That seems to be, I would say, the best way to go for it is just to say just do it for one facility. That's all we can say about that.

Okay. Let's see. Okay. I think I answered that. Okay. I think we answered that one. Let's see. Okay, I think we have gotten any other questions. Let's see. I think that's just about it. Okay. Yeah. Yes, so here's a question. I think I can answer this one. "Is there a difference between a SOPS survey and a safety culture survey, and, if yes, can you share the key components that separate them?" The AHRQ SOPS survey or the AHRQ Surveys on Patient Safety Culture is a safety culture survey. There are other safety culture surveys, but the AHRQ survey is free and available to the public, as well as all of the products and resources and the ability to submit to the database and receive a free database feedback report if you choose to do so. So, a SOPS survey is a safety culture survey.

Let's see. Here's another one. "If we have an organization with a mix of services, outpatient offices, and some long-term care services, would you recommend offering two different SOPS surveys?" Yes. I think both Naomi and I were just nodding at each other. Absolutely. If you have an outpatient facilities and, let's say, long-term care services facilities, what we would do is that we would recommend for your outpatient offices you use the SOPS Medical Office Survey, and for your long-term care facilities with, I would say, licensed nursing home beds or licensed skilled nursing home beds, we would recommend that you use the Nursing Home Survey on Patient Safety Culture.

***Famolaro (closing), Slide 59***

I think that's it. We are just about at time here. I am going to let you know that there is when we finish here, a brief webcast evaluation will pop up, when you close out from today's webcast. Please, take a moment to provide us with your feedback as it helps us improve our offerings and plan future events that meet your needs. We also invite you to visit the AHRQ website and contact us at any time by email or phone. Thank you so much for joining us today, and this concludes today's presentation. Thank you.