



AMBULATORY SURGERY CENTER SURVEY ON PATIENT SAFETY CULTURE User's Guide



Surveys on
Patient Safety
Culture™



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**PATIENT
SAFETY**

AHRQ Ambulatory Surgery Center Survey on Patient Safety Culture: User's Guide

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Contents of This Survey User’s Guide

The AHRQ *Ambulatory Surgery Center Survey on Patient Safety Culture*, this User’s Guide, and other toolkit materials are available on the AHRQ Web site (<http://www.ahrq.gov/professionals/quality-patient-safety/patientsafetyculture/index.html>).

These materials are designed to provide ambulatory surgery centers (ASCs) with the basic knowledge and tools needed to conduct a patient safety culture assessment, along with ideas for using the data. This guide provides a general overview of the issues and major decisions involved in conducting a survey and reporting the results.

Part One: Survey User’s Guide

- Chapter 1. Introduction..... 1**
 - Development of the *Ambulatory Surgery Center Survey on Patient Safety Culture* 1
 - Ambulatory Surgery Center Definition..... 2
 - Identification of Survey Participants..... 3
 - Patient Safety Culture Composites 3
 - Modifications to the Survey 4
- Chapter 2. Getting Started..... 5**
 - Determine Available Resources and Project Scope 5
 - Decide on Your Data Collection Method 5
 - Decide Whether To Use Survey Identifiers 6
 - Decide Whether To Use an Outside Vendor..... 7
 - Plan Your Project Schedule 8
 - Form a Project Team..... 8
 - Establish a Point of Contact..... 9
- Chapter 3. Paper Surveys..... 10**
 - Decide How Paper Surveys Will Be Distributed and Returned..... 10
 - Publicize and Promote the Survey 10
 - Follow Survey Administration Steps 11
 - Develop and Assemble Survey Materials 11
- Chapter 4. Web-Only and Mixed-Mode Surveys..... 15**
 - Publicize and Promote the Survey 15
 - Follow Survey Administration Steps 15
 - Develop Survey-Related Materials 16
 - Design and Pretest Web Surveys 19
- Chapter 5. Analyzing Data and Producing Reports 23**
 - Identify Incomplete and Ineligible Surveys 23
 - Calculate the Final Response Rate..... 23
 - Edit the Data and Prepare the Data File..... 23
 - Deidentify, Analyze, and Code Open-Ended Comments..... 24
 - Analyze the Data and Produce Reports of the Results..... 25
- Technical Assistance 28**
- References 28**

Part Two: Survey Materials

Ambulatory Surgery Center Survey on Patient Safety Culture	31
Ambulatory Surgery Center Survey on Patient Safety Culture: Composites and Items	35
Appendix A. Sample Data Collection Protocol for the ASC Point of Contact: Paper Survey	38
Appendix B. Sample Data Collection Protocol for the ASC Point of Contact: Web Survey.....	39
Appendix C. Sample Data Collection Protocol for the ASC Point of Contact: Mixed-Mode Survey	40

List of Figures

Figure 1. Task Timeline for Project Planning for a Single ASC: Paper Survey	8
Figure 2. Repeating the Response Categories When Vertical Scrolling Is Needed.....	21

List of Tables

Table 1. Patient Safety Culture Survey Composites and Definitions	3
Table 2. Example of How To Compute Frequency Percentages	26
Table 3. Example of How To Calculate Item and Composite Percent Positive Scores	27

Chapter 1. Introduction

As ambulatory surgery centers (ASCs) continually strive to improve patient safety and quality, ASC leadership increasingly recognizes the importance of establishing a culture of patient safety. Achieving such a culture requires leadership, providers and staff to understand their organizational values, beliefs, and norms about what is important and what attitudes and behaviors are expected and appropriate. A definition of safety culture applicable to all health care settings is provided below.

Safety Culture Definition

The safety culture of an organization is the product of individual and group values, attitudes, perceptions, competencies, and patterns of behavior that determine the commitment to, and the style and proficiency of, an organization's health and safety management. Organizations with a positive safety culture are characterized by communications founded on mutual trust, by shared perceptions of the importance of safety, and by confidence in the efficacy of preventive measures.

Study Group on Human Factors. Organising for safety: third report of the ACSNI (Advisory Committee on the Safety of Nuclear Installations). Sudbury, England: HSE Books; 1993.

Development of the *Ambulatory Surgery Center Survey on Patient Safety Culture*

Purpose

AHRQ sponsored the development of the *Ambulatory Surgery Center Survey on Patient Safety Culture* as a new survey in the suite of AHRQ Surveys on Patient Safety Culture. The ASC survey is designed specifically for ASC staff and asks for their opinions about the culture of patient safety at their centers. The survey can be used to:

- Raise staff awareness about patient safety,
- Assess the current status of patient safety culture,
- Identify strengths and areas for patient safety culture improvement,
- Examine trends in patient safety culture change over time,
- Evaluate the cultural impact of patient safety initiatives and interventions, and
- Conduct comparisons within and across organizations.

Survey Development and Pilot Test

A survey design team from Westat conducted the following activities to identify key composites of ASC safety culture, relevant background questions about staff and ASC characteristics, and appropriate terms and words to use in the survey:

- Reviewed the literature, including existing surveys, pertaining to patient safety, ASC errors and quality-related events, error reporting, safety climate and culture, and organizational climate and culture.
- Conducted background interviews with experts in the field of ambulatory surgery practice and patient safety and with both clinical and nonclinical ASC staff.

Westat then developed draft survey items to measure key composites and conducted cognitive interviews with ASC staff. Interview participants included clinical staff, such as doctors, nurses, and technicians, as well as nonclinical staff, including ASC directors, schedulers, and billing staff. Input on the draft survey was also obtained from a 17-member Technical Expert Panel (TEP) consisting of representatives from AHRQ, the Centers for Medicare & Medicaid Services, professional associations, and universities.

The draft survey was pilot tested at 59 ASCs across 20 States. Participating ASCs varied by number of staff and ASC type (hospital affiliated or not hospital affiliated; multispecialty or single specialty). All eligible providers and staff who work at each ASC were asked to complete the survey, including contract and part-time staff.

Analysts examined the reliability and factor structure of the patient safety culture composites. On the basis of these analyses, as well as input from AHRQ and the TEP, the final survey items and composite measures in the *Ambulatory Surgery Center Survey on Patient Safety Culture* were determined to have sound psychometric properties (Sorra, et al., 2014).

Ambulatory Surgery Center Definition

Ambulatory Surgery Centers are those facilities that have been certified and approved to participate in the Centers for Medicare & Medicaid Services' ASC program. ASCs provide surgical services to patients who are not expected to need an inpatient stay following surgery (see <http://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/CertificationandCompliance/ASCs.html>). Although ASCs can have a variety of ownership and management arrangements, the *Ambulatory Surgery Center Survey on Patient Safety Culture* measures patient safety culture at a **single** ASC facility, regardless of its corporate affiliation with a larger chain or management by an external entity. The goal of the survey is to assess patient safety culture at the facility level. We therefore consider each unique facility to be a separate center for the purposes of survey administration and providing facility-specific feedback. When administering the survey at multiple sites, each ASC should be identified as a separate site so each site can receive its own results in addition to producing overall results across sites. We also recommend that there be at least five respondents from a center for a survey feedback report to be provided to the site, to protect respondent anonymity. Small ASCs in a larger system can have their data aggregated with other centers for feedback purposes.

Note that this survey has been developed and tested for ASCs only. This survey has not been tested in office-based surgery settings. Hospital outpatient surgery departments wishing to administer a patient safety culture survey should consult instructions for the *Hospital Survey on Patient Safety Culture*.

Identification of Survey Participants

The survey is designed to be administered to all staff (clinical and nonclinical) who have worked at the ASC at least four times in the past month AND have been working at the ASC for at least 6 months. All staff asked to complete the survey should have enough knowledge about your ASC and its operations to provide informed answers to the survey questions. In general, include staff and doctors who interact with others working at the center and do so often enough to be able to report on the topics assessed in the survey. Overall, when considering who should complete the survey, ask yourself:

- Does this person know about *day-to-day activities* at this ASC?
- Does this person interact regularly with staff working at this ASC?

Types of staff. The survey should be administered to full- or part-time employees, per diem employees, and those who work in the facility on a contract basis but may not be employees. Include doctors, nurses, certified registered nurse anesthetists (CRNAs), physician assistants (PAs), nurse practitioners (NPs), technicians, management staff (center directors, medical directors, nurse managers, office managers, etc.), and administrative, clerical, or business staff (schedulers, billing staff, receptionists, medical records, etc.).

Doctors or staff working at more than one ASC site. Some doctors or staff may work at more than one ASC, so distribute the survey in the center *where they spend most of their time* and instruct them to answer about that ASC only. If they spend an equal amount of time at multiple ASCs, choose one center and instruct them to answer the survey only for that center.

Patient Safety Culture Composites

The *Ambulatory Surgery Center Survey on Patient Safety Culture* emphasizes patient safety and quality assurance issues with a total of 35 questions or items. There are 27 survey items grouped into 8 composite measures, or composites. In addition to the composites, the survey includes one item measuring how often ASCs document near-misses; one item asking whether the respondent is in the room during surgeries, procedures, or treatments; and three items about communication before and after surgeries, procedures, or treatments. The survey also includes an overall rating item on patient safety, two items about respondent characteristics, and a section for open-ended comments.

Table 1 provides the patient safety culture composites included in the survey and their definitions.

Table 1. Patient Safety Culture Composites and Definitions

Patient Safety Culture Composite	Definition: <i>The extent to which...</i>
1. Communication About Patient Information	Key information about patients is available and communicated well within the ASC.
2. Communication Openness	Staff speak up when they see something unsafe, they feel comfortable asking questions, and their suggestions are valued.
3. Staffing, Work Pressure, and Pace	Staff do not feel rushed and have enough time to properly prepare for procedures, and there are enough staff to handle the workload.
4. Teamwork	Staff are respectful and help each other, work together as an effective team, and understand each other's roles and responsibilities.
5. Staff Training	Staff receive adequate orientation, get the refresher and on-the-job training they need, and do not feel pressured to do tasks they are not trained to do.
6. Organizational Learning—Continuous Improvement	The facility actively looks for ways to improve patient safety and makes changes to ensure that problems do not recur.
7. Response to Mistakes	Staff are told about patient safety problems, learning rather than blame is emphasized, and staff are treated fairly when they make mistakes.
8. Management Support for Patient Safety	Managers examine near-miss events, provide adequate resources, and encourage everyone to suggest ways to improve patient safety.

Modifications to the Survey

We recommend administering the survey in its entirety without modifications or deletions. If any changes to the core survey are made (such as changing the wording of the items or response options, changing the order of the items or response options, deleting one or more items, or adding supplemental or custom questions among the core items within the survey), the survey is no longer considered a SOPS survey. Any changes may affect the reliability and validity of the survey and make comparisons with other ASCs difficult. The successful use of SOPS surveys depends on everyone administering the same items in the same order.

Changing Background Items

The survey ends with a background question on staff position. Your ASC may wish to modify the responses to this question so they better match your staff position names.

Modifying Staff Positions

Modifications of staff positions is acceptable; however, if your ASC plans to submit to the ASC SOPS Database, you must recode the modified staff positions so they crosswalk back to the original survey's staff positions.

Adding Items

If your ASC adds items to the survey, add these items toward the end of the survey (just before the Background Questions section).

Chapter 2. Getting Started

This chapter is designed to guide you through the planning and decisionmaking stages of your project.

Determine Available Resources and Project Scope

Two of the most important elements of an effective project are identifying resources to determine the scope of your data collection effort and a realistic schedule. Think about your available resources:

- What financial resources are available to conduct this project?
- Who within the ASC or management company is available to work on this project?
- When do we need to have the survey results completed and available?
- Do we have the technical capabilities within the ASC to conduct this project, or do we need to consider using an outside company or vendor for some or all of the tasks?

Decide on Your Data Collection Method

Most single ASC sites will find that response rates are higher with paper surveys and that the logistics of paper surveys will be manageable. But to help you decide which data collection method is most appropriate for your ASC, consider the following:

1. **Response rates.** Low response rates may limit your ability to generalize results to your entire ASC because it is possible that the large number of staff who did **not** respond to the survey would have answered very differently from those who did respond. The higher the response rate, the more confident you can be that you have an adequate representation of staff views. Consider the following response rate findings when deciding how to administer your survey:
 - Published research shows that, generally, paper surveys have higher response rates than Web surveys (Dillman, et al., 2009; Lozar Manfreda, et al., 2008; Shih and Fan, 2008).
 - Comparative data for the hospital and medical office surveys on patient safety culture (Sorra, et al., 2012) show that response rates are higher with paper surveys (61 percent and 80 percent, respectively) compared with Web only (51 percent and 66 percent, respectively) .
2. **Your ASC's experience with Web surveys.** You should also consider the following factors when thinking about the possible use of Web surveys:
 - **Limited staff access to computers or email.** Such limitations may result in low response rates. Staff may also be concerned about the privacy of their responses if they share computers and may decide not to take the survey at work.

- **ASC experience with conducting Web surveys.** If you have had previous success surveying ASC staff online and achieved high response rates, you may prefer administering a Web survey.
3. **Logistics.** In single ASCs, the logistics of administering paper surveys may be manageable. If you plan to survey multiple ASCs, however, there are advantages with Web surveys:
 - There are no surveys or cover letters to print, survey packets to assemble, postage and mailing envelopes to arrange for, or completed paper surveys to manage.
 - The responses are automatically entered into a database, so the need for separate data entry is eliminated.
 - The task of data cleaning is reduced because of programmed validation checks.
 4. **Costs and your ASC resources.** If your management company plans to survey a large number of ASCs, a Web survey may be more cost effective than a paper survey.
 5. **Survey preparation and testing time.** If you are using a Web survey and plan to program it, allow sufficient time and resources to:
 - Ensure that the Web survey meets acceptable standards for functionality, usability, and log-in passwords (if you use passwords) and allows respondents to save their responses and return later to finish the survey,
 - Format the survey appropriately to reduce respondent error,
 - Put security safeguards in place for protecting the data, and
 - Test it thoroughly to ensure that the resulting dataset has captured the data correctly.

Decide Whether To Use Survey Identifiers

You need to decide whether you will use individual survey identifiers and, if you are surveying multiple ASCs, how you will identify responses from each ASC.

Individual Identifiers

Staff are usually concerned about the confidentiality of their responses, so we recommend that you conduct an *individually anonymous* survey. This means you should *not* use identifiers to track individuals. Also, *do not* ask respondents to provide their names. Confidentiality concerns are even stronger in smaller ASCs. You want to ensure that respondents feel comfortable reporting their true perceptions and confident that their answers cannot be traced back to them.

ASC Identifiers

If you are surveying multiple ASCs, you *will* need to use *ASC-level* identifiers to track surveys from each ASC. Doing so will allow you to produce feedback reports for each ASC. We offer a few ways of using identifiers for paper and Web surveys.

Paper Surveys

Vary survey color. Consider printing surveys on different-colored paper for each center.

Print an ASC identifier on the survey. You can print an ASC identifier on the surveys by giving each center a unique form number (e.g., Form 1, Form 2, Form 3) to identify different centers. Print the identifier on the survey (e.g., lower left corner of the back page).

Web Surveys

You can include an ASC identifier as part of the password that is used to access the survey. The password would be linked to a particular ASC site. Alternatively, you can use a customized hyperlink for staff within an ASC site that differs across sites.

Decide Whether To Use an Outside Vendor

You may want to use an outside company or vendor to conduct some or all of your data collection, analysis, and report preparation. Hiring a vendor may be a good idea for several reasons:

- Working with an outside vendor may help ensure neutrality and the credibility of results.
- Staff may feel their responses will be more confidential when they are returned to an outside vendor.
- Vendors typically have experienced staff to perform all the necessary activities and the facilities and equipment to handle the tasks. A professional and experienced firm may be able to provide your ASC with better quality results faster than if you were to do the tasks yourself.

If your ASC is part of a larger system, your headquarters staff may be able to conduct the survey at your center or administer it companywide. Moreover, staff may feel more comfortable about the confidentiality of their responses if surveys can be returned to a system headquarters address.

If you plan to hire a vendor, the following guidelines may help you select the right one:

- Look for a vendor with expertise in survey administration and your preferred mode of data collection.
- Determine whether the vendor can handle all the project components.
- Provide potential vendors with a written, clear outline of work requirements. Make tasks, expectations, deadlines, and deliverables clear and specific. Then, ask each vendor to submit a short proposal describing the work they plan to complete, the qualifications of their company and staff, and details regarding methods and costs.
- Meet with the vendor to make sure you will be able to work well together.
- After choosing a vendor, institute monitoring and problem-resolution procedures.

Plan Your Project Schedule

The sample timeline in Figure 1 can be used as a guideline for administering a paper survey at one ASC. For a single ASC, plan for about 5 weeks from the beginning of project planning to the end of data collection. Add a few more weeks for data cleaning, analysis, and report preparation.

If you plan to administer a Web-only or mixed-mode survey, but have no experience and do not plan to use a vendor, add several weeks to the timeline in Figure 1 during the preparation and planning stage. That will allow time to design, program, and test the survey.

Figure 1. Task Timeline for Project Planning for a Single ASC: Paper Survey

Task Timeline for Project Planning	Preparation/ Planning	Week 1	Week 2	Week 3	Week 4	Week 5
Getting Started - Ch. 2						
Determine Available Resources and Project Scope	✓					
Decide on Your Data Collection Method	✓					
Decide Whether To Use Survey Identifiers To Track Responses	✓					
Decide Whether To Use an Outside Vendor (and Select Vendor)	✓					
Plan Your Project Schedule	✓					
Form a Project Team	✓					
Establish a Point of Contact in Your ASC	✓					
Survey Administration Decisions and Steps - Ch. 3 & 4						
Decide How Surveys Will Be Distributed and Returned	✓					
Develop, Print, and Assemble Survey Materials		✓				
Publicize and Promote the Survey			←→			
Distribute First Survey				✓		
Track Responses and Calculate Preliminary Response Rates			←→			
Distribute Second Survey				✓		
Close Out Data Collection						✓

If you plan to survey multiple ASCs, you may need to adjust the timeline:

- Establish a system-level point of contact as well as a point of contact in each ASC.
- Allow more time to assemble survey materials (e.g., 2 weeks instead of 1 week).
- Distribute a first reminder 1 week after distributing the first survey.
- Distribute a second survey 2 weeks after the first reminder.
- Distribute a second reminder 1 week after distributing the second survey.
- Add a week or more to the data collection period.

Form a Project Team

Whether you conduct the survey in-house or through an outside vendor, you will need to establish a project team responsible for planning and managing the project. Your team may

consist of one or more individuals from your own ASC staff or management company staff, outsourced vendor staff, or a combination. Their responsibilities will include duties such as the following:

- Planning and budgeting
- Establishing contact persons in the ASCs
- Preparing publicity materials
- Preparing paper survey materials
- Developing a Web survey instrument (if conducting a Web survey)
- Distributing and receiving paper survey materials (if conducting a paper survey)
- Tracking survey responses and calculating preliminary response rates
- Handling data entry, analysis, and report preparation
- Distributing and discussing feedback results with staff
- Coordinating with and monitoring an outside vendor (optional)

Establish a Point of Contact

You will need to establish a point of contact (POC) for the survey (e.g., the ASC manager). Include the POC's name, job title, and contact information in all survey materials in case respondents have questions about the survey.

The ASC POC has several duties, including:

- Promoting the survey,
- Answering questions about survey items, instructions, or processes,
- Responding to staff comments and concerns,
- Helping to coordinate survey distribution and receipt of completed surveys if paper surveys are used, and
- Communicating with outside vendors and other POCs, as needed.

If you administer the survey at multiple ASCs, you may also want to designate a system-level POC. Include the contact information for this POC in all survey materials.

Chapter 3. Paper Surveys

In this chapter, we present information to help you decide how your paper surveys will be distributed and returned, suggest ways for promoting and publicizing your survey, describe survey administration steps, and provide a detailed description of how to develop and assemble the survey materials.

Decide How Paper Surveys Will Be Distributed and Returned

When deciding how surveys will be distributed and returned, consider any previous experience your ASC has had with employee surveys.

Distributing surveys. We recommend that a designated point of contact (POC) distribute the surveys to ASC staff. To promote participation, you can distribute the surveys at staff meetings and serve refreshments, following these guidelines for distributing surveys:

- Provide explicit instructions for completing the survey.
- Inform staff that completing the survey is voluntary.
- Assure them that their responses will be kept confidential. Emphasize that reports of findings will include only summary data and will not identify individuals.
- Caution them (especially if they are completing the survey during a meeting) not to discuss the survey with other staff while answering the survey.
- Permit them to complete the survey **during work time** to emphasize that ASC leaders support the data collection effort.

Returning surveys. If your budget is limited, completed surveys can be returned to a designated POC at the ASC or to drop boxes at the ASC. These methods of returning surveys, however, may raise staff concerns about confidentiality.

Staff can also mail their completed surveys to an outside vendor. If you are part of a larger multifacility system, consider having the surveys returned to a system headquarters address. This can help reassure staff that no one at their ASC will see the completed surveys. Remember, if surveys are returned through the mail, you will need to account for return postage in your budget.

Publicize and Promote the Survey

We strongly recommend publicizing the survey before and during data collection. Be sure to advertise that ASC leaders support the survey. Publicity activities may include:

- Posting flyers or posters at the ASC, sending staff emails, and posting information about the survey on an ASC intranet,
- Promoting the survey during staff meetings, and
- Having a senior leader or executive send a supportive email during data collection, thanking staff if they have completed the survey and encouraging others to do so.

Follow Survey Administration Steps

We recommend the following basic data collection steps to achieve high response rates.

1. **Optional prenotification letter for paper surveys.** If you have publicized your survey well and your survey cover letter explains the purposes of the survey, distributing a prenotification letter announcing the upcoming survey is optional.
2. **First paper survey.** About 1 week after publicizing the survey, distribute a survey packet to each staff member that includes the survey, a supporting cover letter, and a return envelope. If you want staff to return their surveys by mail, include a preaddressed postage-paid envelope.
3. **Second survey.** To promote a higher response, a week or two after the first survey is distributed, distribute a second survey to everyone at your ASC (it has to go to everyone if you are conducting an individually anonymous survey because you do not know who responded). Include a cover letter thanking those who have already responded and reminding others to please complete the second survey. If you used individual identifiers on your surveys (although not recommended), you can distribute second surveys only to nonrespondents.
4. **Calculate preliminary response rates.** Calculate a preliminary response rate at least once a week to track your response progress. Divide the number of returned surveys (numerator) by the number of eligible staff who received the survey (denominator).

$$\frac{\text{Number of returned surveys}}{\text{Number of eligible staff who received a survey}}$$

If staff members' employment ends *during* data collection, they are still considered eligible and should be included in the denominator even if they did not complete and return the survey. See Chapter 5 for a discussion of how to calculate the final official response rate for your ASC.

5. **Data collection closeout.** Keep in mind that your goal is to achieve a high response rate. If your response rate is still too low after distributing the second survey, add another week to the data collection period or consider sending a followup reminder notice.

Develop and Assemble Survey Materials

Estimate the number of surveys you need to print, and assemble the following materials for your paper survey data collection.

Printing Guidelines

We suggest the following printing guidelines:

- If you are conducting an anonymous survey and plan to send second surveys to everyone, print at least twice the number of surveys as staff in your sample. Include a few extra surveys in case some staff misplace theirs.
- If you are tracking responses and will send second surveys only to nonrespondents, you may print fewer surveys overall. For example, if you are administering the survey to 20

staff and your ASC typically experiences a 40 percent response to the first survey packet, print 20 first surveys and 12 second surveys (20 staff x 60% nonrespondents = 12), for a total of 32 printed surveys. Add a few extra surveys in case some staff misplace theirs.

Multifacility Point-of-Contact Letters and Instructions

Send a letter to each POC describing the purpose of the survey and explaining their role in the survey effort. The letter should be on company letterhead, signed by a senior executive. Provide the POCs with a data collection protocol that describes their tasks, along with a proposed timeline. (See a sample data collection protocol in Appendix A.)

Publicity Materials

Your publicity materials can include some or all of the following information:

- Endorsements of the survey from your ASC leaders
- Clear statements about the purpose of the survey, which is to assess staff attitudes and opinions about patient safety in their ASC
- Description of how the collected data will be used to identify ways to improve patient safety
- Assurances that only summary (aggregated) data will be reported, thus keeping individual responses confidential
- Assurance of individual anonymity (if no individual identifiers are used) or confidentiality of response (if individual identifiers are used)
- Introductions to the survey vendor, if you have chosen to use a vendor
- Contact information for the designated ASC POC

Cover Letter in First Survey Packet

The cover letter in the first survey packet should be on official ASC letterhead and signed by a senior ASC leader or executive. The cover letter should address the following points:

- Why the ASC is conducting the survey, how survey responses will be used, and why the staff member's response is important
- How much time is needed to complete the survey
- Assurances that the survey is voluntary and can be completed during work time
- Assurance of individual anonymity (if no individual identifiers are used) or confidentiality of response (if individual identifiers are used)
- How to return completed surveys
- Incentives for survey participation (optional)
- Contact information for the ASC POC (and system-level POC, if applicable)

Sample Cover Letter Text for Paper Survey

The enclosed survey is part of our ASC's efforts to better address patient safety. All center staff are being asked to complete this survey. Your participation is voluntary, but we encourage you to complete the survey to help us improve the way we do things at this ASC. It will take about 10 to 15 minutes to complete, and your individual responses will be kept anonymous [*say confidential if you are using respondent identifiers*]. Only group statistics, not individual responses, will be prepared and reported.

Please complete your survey **WITHIN THE NEXT 7 DAYS**. When you have completed your survey, please [*provide return instructions for paper surveys*]. [*Optional incentive text: In appreciation for participation, staff who complete and return their surveys will receive (describe incentive).*]

Please contact [*POC name and job position*] if you have any questions [*provide phone number and email address*]. Thank you in advance for your participation in this important effort.

Cover Letter in Second Paper Survey Packet

The contents of the second survey cover letter should be similar to the first cover letter but should have a different beginning. If you are conducting an anonymous survey, you will have to distribute second surveys to everyone, so you might begin with: "About *X* days ago a copy of the *Ambulatory Surgery Center Survey on Patient Safety* was distributed to you and other staff at your ASC. If you have already returned a completed survey, thank you very much and please disregard this second survey packet." If you are using individual identifiers, you will be able to send the second survey to nonrespondents only.

Followup Reminder Notices

If needed to improve response, distribute reminder notices after the second survey administration. The notices, which can be on a half-page of cardstock, should ask staff to please complete and return their surveys and should include a thank you to those who have done so already. If you are using individual identifiers to track responses, you can distribute the reminders to nonrespondents only.

Labels and Envelopes for Paper Survey Packets

Outer envelope labels with staff names are a good idea even if the survey itself is completed anonymously to ensure that every staff member receives a survey. Return labels should be used on return envelopes. Labels may also be used to place ASC identifiers on the surveys.

Use a slightly larger outer envelope to keep from bending or folding the survey or return envelope contained in the survey packet. Use your estimate of the number of surveys to print to estimate the numbers of outer and return envelopes you will need.

Postage for Returning Paper Surveys

If staff will be returning their surveys by mail, weigh the survey and the return envelope to ensure that you have adequate postage on the envelopes. When calculating the total cost of postage, be sure to base the amount on your estimated number of any initial **and** followup surveys that need to be mailed.

Chapter 4. Web-Only and Mixed-Mode Surveys

In this chapter, we suggest ways to publicize your survey, describe survey administration steps for Web-only and mixed-mode surveys, describe materials that need to be developed, and highlight important best practices in Web survey design and pretesting.

Publicize and Promote the Survey

As with paper surveys, we strongly recommend publicizing the survey before and during data collection. Be sure to advertise that ASC leaders support the survey. Publicity activities may include:

- Posting flyers or posters in the ASC, sending staff emails, and posting information about the survey on an ASC intranet,
- Promoting the survey during staff meetings, and
- Having a senior leader or executive send a supportive email during data collection, thanking staff if they have completed the survey and encouraging others to do so.

Follow Survey Administration Steps

We recommend the following basic data collection steps to achieve high response rates.

1. **Prenotification email.** Email staff a prenotification letter telling them about the upcoming survey and alerting them that they will soon receive an invitation to complete the Web survey. You will need an up-to-date list of staff email addresses.
2. **Survey invitation email.** Send the survey invitation email a few days after sending the prenotification email. Include the hyperlink to the Web survey (or instructions for accessing the survey on the ASC intranet), along with the individual's password, if applicable. Provide instructions about whom to contact if there are technical problems accessing and navigating the survey.
3. **Followup communications.** Send an email reminder a week after sending the survey invitation. In the message, thank those who have already completed the survey and encourage others to do so. Distribute a second reminder a week later. Consider sending a third email reminder to boost response as needed. Be sure to make the subject lines of followup email reminder messages slightly different to capture recipients' attention. Reminders should also include the original message and instructions for accessing the survey.

If you use individual identifiers, you can send email reminders only to nonrespondents. Otherwise, reminders must be sent to everyone. Be sure to thank those who have already completed their surveys and ask them to disregard the reminder.

4. **Calculate preliminary response rates.** Calculate a preliminary response rate at least once a week to track your response progress. Divide the number of returned surveys (numerator) by the number of eligible staff who received the survey (denominator).

$$\frac{\text{Number of returned surveys}}{\text{Number of eligible staff who received a survey}}$$

If any staff members' employment ends *during* data collection, they are still considered eligible and should be included in the denominator even if they did not complete and return the survey. See Chapter 5 for a discussion of how to calculate the final official response rate for your ASC.

5. **Data collection closeout.** Keep in mind that your goal is to achieve a high response rate. If your response rate is still too low after distributing the second survey, add another week to the data collection period and consider sending another reminder email.

Survey Administration Steps for Mixed-Mode Surveys

Administer the Web survey first, followed by a paper survey.

- Week 1: Carry out Web survey administration steps for the first week of data collection.
- Week 2: Email or distribute a followup reminder.
- Week 3: Distribute survey packets to all staff (or to nonrespondents only if using identifiers to track response). In the cover letter, tell staff to disregard the paper survey if they completed and submitted the Web survey.
- Follow paper survey administration steps but continue the Web survey option. For followup reminders (if needed), you can use a mix of email and printed (or in-person) reminders.

Develop Survey-Related Materials

The following materials will need to be developed in preparation for Web survey data collection.

Multifacility Point-of-Contact Letters and Instructions

Send a letter to each POC describing the purpose of the survey and explaining his or her role in the survey effort. The letter should be on company letterhead, signed by a senior executive. We also recommend that you provide the POCs with a data collection protocol that describes their tasks, along with a proposed timeline. (See a sample data collection protocol in Appendix B.)

Publicity Materials

Your publicity materials can help legitimize the survey effort and increase your response rate by including some or all of the following types of information:

- Endorsements of the survey from your ASC leaders
- Clear statements about the purpose of the survey, which is to assess staff attitudes and opinions about patient safety in their ASC
- Description of how the collected data will be used to identify ways to improve patient safety
- Assurances that only summary (aggregated) data will be reported, thus keeping individual responses confidential
- Introductions to the survey vendor, if you have chosen to use a vendor
- Contact information for the designated ASC POC

Prenotification Email

We recommend the following for the prenotification email to help boost survey response:

- Have it signed by a senior ASC leader or executive.
- Use a name or email address in the “From” line that will be easily recognizable to staff to prevent them from mistaking your email for spam and deleting it.
- Include the following points in your message:
 - Statement that in a few days the person will receive an invitation from [XXX] to participate in a brief survey on patient safety in the ASC,
 - Statement about the purpose and intended use of the survey and the importance of responding,
 - Assurance of individual anonymity (if no individual identifiers are used) or confidentiality of response (if individual identifiers are used), and
 - Introduction to survey vendor (if applicable).

Survey Invitation

The survey invitation email should also be signed by a senior ASC leader or executive. We recommend providing hyperlinks to the Web survey in your invitation email and any followup email reminders. Respondents will be able to click directly on the hyperlink. You may also provide passwords for beginning the survey. If the survey is located on the ASC intranet, provide instructions for accessing the survey. The survey invitation message should include the following information:

- Brief restatement of why the ASC is conducting the survey, how it will use the data, and why the staff member’s response is important,
- How much time is needed to complete the survey,
- Assurances that the survey is voluntary and can be completed during work time,
- Assurance of individual anonymity (if no individual identifiers are used) or confidentiality of response (if individual identifiers are used),

- Incentives for survey participation (optional), and
- Contact information for the ASC POC (and system-level POC, if applicable).

If someone other than the POC will handle questions about possible technical problems with the survey, provide contact information for that person.

Followup Reminder Notices

Send email reminder notices a few days after data collection begins and again a week after that. The contents of the reminder notices should be similar to the first invitation email but should have a different beginning. If you are conducting an anonymous survey, you will have to send a reminder to everyone, so you might begin with: “About *X* days ago an invitation to participate in the *Ambulatory Surgery Center Survey on Patient Safety* was emailed to you and other staff at your ASC. If you have already completed the survey, thank you very much and please disregard this reminder.” If you are using individual identifiers, you will be able to send the reminders to nonrespondents only.

Sample Survey Invitation Email (survey on WWW)

You are invited to participate in an important survey that is part of our ASC’s patient safety program. All staff are being asked to complete this survey. Your participation is voluntary, but we encourage you to complete the survey to help us improve the way we do things at this ASC. It will take about 10 to 15 minutes to complete and you may take it during work time. Your individual responses will be kept anonymous [*say confidential if you are using respondent identifiers*]. Only group statistics, not individual responses, will be prepared and reported.

To access the secure survey Web site, click on the following link:

<http://www.xxxxxxxxxxxxxxx>

[*Optional, if using passwords:* Then enter the following password to begin the survey:
xxxxxxxxxx]

[*Optional incentive text:* In appreciation for participation, staff will receive (*describe incentive*).]

Please contact [*POC name and job position*] if you have any questions about the survey [*provide phone number and email address*]. If you are having a technical problem with the survey, please respond to this email with a description of your problem or contact [*Name, phone number*].

Thank you in advance for participating in this important patient safety effort.

Design and Pretest Web Surveys

If you decide to conduct a Web survey, there are a number of Web survey design aspects to consider. If you plan to use commercial off-the-shelf software rather than having a vendor conduct a Web survey, assess the various software applications available to you and select the product that best handles the many features and recommendations we outline below.

Web Survey Design Features

Although research on the best ways to design Web-administered surveys continues to evolve, current knowledge suggests that a good Web survey has the following elements.

Do not force respondents to answer every question. There are several good reasons for allowing staff to choose not to answer a particular question:

- Forcing respondents to answer each question may annoy respondents and lessen their motivation to complete the survey.
- Some respondents may have legitimate reasons for not answering an item. Forcing a response may cause them to make a wild guess, rather than provide an informed answer.
- You will want the Web version to be similar to the paper version, which does not require an answer to every question.

Decide on the number of questions on each Web page. Several options exist for Web page layouts of the survey:

- **Option 1: One Web page for each section of the survey (would include scrolling vertically in larger sections of the survey).** Using one Web page for each section of the survey allows for capturing responses at the end of each section, rather than at the end of the survey. The survey can be programmed to allow respondents to move back and forth across the Web pages before they submit their completed survey.
- **Option 2: Multiple Web pages for larger sections to avoid vertical scrolling.** This option eliminates vertical scrolling as a source of response error. On the downside, it may take respondents slightly longer to answer the survey because they have to click through more pages. Also, if respondents want to review an earlier answer in the same section, they may have to move backward a page or two to locate that answer. Be sure to repeat the Section heading at the top of each page. Add “Continued” to the Section heading to indicate it is not the first page in the Section.

We do *not* recommend that you format the survey with one *item* per page. That format would increase the time it takes to complete the survey. Also, never program the survey so that respondents must scroll horizontally to see parts of the survey. That format can be annoying and may contribute to response error if respondents overlook parts of the survey.

Make sure the response categories (e.g., Strongly Disagree, Disagree) always appear on the screen. Response errors may occur if staff cannot see the response categories when scrolling vertically to answer survey items. Be sure that the response categories are repeated as frequently as necessary so that respondents always see them when answering every question. Use a large

screen resolution of 800 pixels by 600 pixels when testing the Web survey because this issue is more problematic the larger the screen resolution. You may also want to test the Web survey using mobile devices with small screens if you think some staff will complete the survey on a cell phone or tablet. Figure 2 on the next page shows you the right way to program the survey with vertical scrolling.

Provide respondents with a way to assess their survey progress (optional). For a relatively short instrument like the *Ambulatory Surgery Center Survey on Patient Safety Culture*, we think a progress indicator is optional. Nevertheless, you could use a graphical progress bar that shows completion or indicates completion percentages at various points, such as “Survey is 50% complete” or “Page 2 of 4.”

Allow respondents to print a hard-copy version of the survey and complete it on paper (optional). Some respondents will prefer to complete a paper version of the survey, and providing this option may boost your response rate. It is possible to design your Web survey so it can be printed in paper form, but test this functionality thoroughly to ensure that the survey prints properly on different printers. Attention must be given to line lengths and page lengths in the design of the Web survey pages to be sure they print properly.

Alternatively, you can include a link to a portable document file (PDF) version of the survey on the Web site. With either alternative, respondents will need instructions to know where to return the completed paper surveys. Designated personnel then must enter the responses into your dataset (paper survey data can be entered via the Web site). Also, if you use individual or center-level identifiers, there should be a way to include the identifier on the printed version of the survey or otherwise identify the paper response.

Figure 2. Repeating the Response Categories When Vertical Scrolling Is Needed

SECTION A: Working in this Facility						
1. How often do the following statements apply to your facility?						
	Never	Rarely	Some- times	Most of the Time	Always	Does not apply or Don't know
1. Important patient care information is clearly communicated across areas in this facility.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. We feel comfortable asking questions when something doesn't seem right.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
3. We have enough staff to handle the workload.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. When we see someone with more authority doing something for patients, we speak up.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Key information about patients is missing when it is needed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Our ideas and suggestions are valued in this facility.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. We share key information about patients as soon as it becomes available.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. There is enough time between procedures to properly prepare for the next one.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Within this facility, we do a good job communicating information that affects patient care.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. We feel rushed when taking care of patients.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Thoroughly Test the Survey

It is essential to thoroughly test the survey. When testing:

- Use the same type of computer that will be available to staff taking the survey at your ASC. If you have more than one type of computer, be sure to test with a range of computer types and include the lower end type with slower Internet connections. You may also want to test the Web survey using mobile devices with small screens if you think some staff will complete the survey on a cell phone or tablet.
- Test the survey with various Internet browsers (e.g., with different iterations of Internet Explorer, Safari, Firefox, Chrome, Mozilla, Opera), different display settings (screen resolutions set at 800 x 600 pixels versus 1200 x 800 pixels), and so forth.
- After you have completed the first two testing steps, submit test survey responses to ensure that the Web survey is working properly and is easy to use.
- Check the Web survey data output. For example, check to make sure that *Does not apply/Don't know* responses show up with a value of 9, not a value of 1 through 5. Also, make sure that the other responses (e.g., *Strongly disagree* through *Strongly agree*) have the correct 1 to 5 values. If the Web responses are miscoded, there is no way to correct the dataset after the survey has been administered.

Testing will help to ensure that the survey appears and performs as it should despite the different settings and personal preferences that staff may use. For more information on Web survey design principles and survey testing, see Couper (2008); Dillman, et al. (2009); and Tourangeau, et al. (2013).

Chapter 5. Analyzing Data and Producing Reports

You will need to prepare the collected survey data for analysis. If you decide to do your own data entry, analysis, and report preparation, use this chapter to guide you through the various decisions and steps. If you decide to hire a vendor for any of these tasks, use this chapter as a guide to establish data preparation procedures.

If you plan to conduct a Web survey, you can minimize data cleaning by programming the Web survey to perform some of these steps automatically. Also, if you plan to administer the survey at more than one ASC, you will need to report the results separately for each site.

Identify Incomplete and Ineligible Surveys

Examine each returned survey for possible problems before the survey responses are entered into the dataset. We recommend that you exclude returned surveys that:

- Are completely blank or contain responses only for the background demographic questions, or
- Contain the exact same answer to all the questions in the survey (since a few survey items are negatively worded, the same exact response to all items indicates the respondent probably did not pay careful attention and the responses are probably not valid).

Calculate the Final Response Rate

After you have identified which returned surveys will be included in the analysis data file, you can use the following formula to calculate the official response rate:

$$\frac{\text{Number of returned surveys} - \text{incompletes and ineligible}}{\text{Number of eligible staff who received a survey}}$$

Note that the numerator may be smaller than in your last preliminary response rate calculation because, during your examination of all returned surveys, you may find that some of the returned surveys are incomplete or ineligible.

Edit the Data and Prepare the Data File

In this section we describe several data file preparation tasks.

Edit Illegible, Mismarked, and Double-Marked Responses

Problematic responses may occur with paper surveys if some respondents write in an answer such as 3.5 when they have been instructed to mark only one numeric response. Or they may mark two answers for one survey item. Develop and document editing rules that address these problems and apply them consistently. Examples of such rules are to use the highest or most positive response when two responses are provided (e.g., a response with both 2 and 3 would convert to a 3) or to mark all of these types of inappropriate responses as missing.

Create and Clean Data File

Paper survey data files. After your paper surveys have been edited as needed, you can enter the data directly into an electronic file by using statistical software such as SAS[®], SPSS[®], or Microsoft Excel[®], or you can create a text file that can be easily imported into a data analysis software program. AHRQ has developed a Data Entry and Analysis Tool that works with Microsoft Excel[®] and makes it easy to input your individual-level data from the survey. The tool then automatically creates tables and graphs to display your survey results. To request the tool, email DatabasesOnSafetyCulture@westat.com.

If you are not using the Data Entry and Analysis Tool, each row in your data file should represent one staff member's responses and each column should represent a different survey question. The next step is to check the data file for possible data entry errors. To do so, produce frequencies of responses for each survey item and look for out-of-range values or values that are not valid responses.

Most items in the survey require a response between 1 and 5, with a 9 coded as *Does not Apply/Don't know*. Check through the data file to ensure that all responses are within the valid range (e.g., that a response of 7 has not been entered). If you find out-of-range values, return to the original survey and determine the response that should have been entered.

Web surveys. Your pretesting should have ensured that responses would be coded and captured correctly in the data file, so the file should not contain invalid values. But you should verify this by again checking that all responses are within the valid range.

Include Individual Identifiers in Your Data File

If you used individual identifiers on your surveys, enter identification numbers in the electronic data file and then destroy any information linking the identifiers to individual names. You want to eliminate the possibility of linking responses on the electronic file to individuals.

If you used paper surveys *without* individual identifiers, include some type of respondent identifier in the data file. Create an identification number for each completed paper survey and write it on the completed paper surveys in addition to entering it into the electronic data file. This identifier can be as simple as numbering the returned surveys consecutively, beginning with the number 1. This number will enable you to check the electronic data file against a respondent's original answers if any values look like they were entered incorrectly.

If you used Web surveys without respondent identifiers, you can electronically generate and assign an identifier to each respondent in the data file.

Deidentify, Analyze, and Code Open-Ended Comments

Respondents are given the opportunity to provide written comments at the end of the survey. Comments can be used to obtain direct quotes for feedback purposes, but they should be carefully reviewed and deidentified first to ensure that they do not contain any information that could be used to identify the person who wrote the comment or individuals referenced in the comment. You may also want to analyze the comments and identify common themes (e.g.,

communication, staffing, teamwork). You can then assign code numbers to match comments to themes and tally the number of comments per theme. Open-ended comments on paper surveys may be coded either before or after the data have been entered electronically.

Analyze the Data and Produce Reports of the Results

Ideally, feedback reports should be provided broadly—to ASC management, patient safety officers and other senior managers, and ASC staff—either directly during meetings or through communication tools such as email, intranet sites, or newsletters. The more broadly the results are disseminated, the more useful the information is likely to become and the more likely respondents will feel that taking the survey was worthwhile. Feedback reports can be customized for each audience, from one- or two-page executive summaries to more complete reports that use statistics to draw conclusions or make comparisons.

Do Not Report Results If There Are Not Enough Respondents

To protect the confidentiality of individual respondents, do not provide any type of survey feedback report for an ASC **if fewer than five respondents have answered the survey**. Also, if an ASC has five overall respondents, but fewer than three respondents answered a particular survey item, do not report percentages of positive, neutral, or negative response for that item—simply indicate there were not enough data to report results for the item.

In any feedback reports, include information about how the survey was conducted and report your response rate. It is also important to present information about the background characteristics of all respondents—their staff positions and weekly hours—to help others understand who responded to the survey. However, do not report results for an item if the total number of respondents is fewer than three, where it may be possible to determine which employees fall into those categories. For example, if only two employees reported that they work at the ASC for 1 to 16 hours per week, you can combine those respondents with respondents reporting they work 17 to 31 hours per week if the total number of respondents in the combined group is three or more.

Calculate Frequencies of Response

One of the simplest ways to present results is to calculate the frequency of response for each survey item. To make the results easier to view in a report, you can combine the two lowest response categories (e.g., *Strongly disagree/Disagree* or *Never/Rarely*) and the two highest response categories (e.g., *Strongly agree/Agree* or *Most of the time/Always*). The midpoints of the scales can be reported as a separate category (*Neither agree nor disagree* or *Sometimes*).

Most survey items include a *Does not apply/Don't know* response option. In addition, each survey item will probably have some missing data from respondents who simply did not answer the question. *Does not apply/Don't know* and missing responses are *excluded* when displaying percentages of response to the survey items. When using a statistical software program, you will recode the “9” response (*Does not apply/Don't know*) as a missing value so that it is not included

when displaying frequencies of response. An example of how to handle the *Does not apply/Don't know* and missing responses when calculating survey results is shown in Table 2.

Table 2. Example of How To Compute Frequency Percentages

Item A1. Important patient care information is clearly communicated across areas in this facility			
Response	Frequency (Number of Responses)	Response Percentage	Combined Percentages
1 = Strongly disagree	1	10%	30% Negative
2 = Disagree	2	20%	
3 = Neither	1	10%	10% Neutral
4 = Agree	4	40%	60% Positive
5 = Strongly agree	2	20%	
Total	10	100%	100%
9 = Does not apply/Don't know and Missing (did not answer)	3	-	-
Total Number of Responses	13	-	-

Calculate Item and Composite Percent Positive Scores

It can be useful to calculate an overall score for items within a composite. To calculate your ASC's score on a particular safety culture composite, average the percent positive responses on all items included in the composite.

To calculate percent positive scores, you will need to reverse code negatively worded items. Disagreeing or responding Never to a negatively worded item indicates a positive response. Negatively worded items are identified in the document *Ambulatory Surgery Center Survey on Patient Safety Culture: Composites and Items*. Use the following guidelines for reverse coding negatively worded items:

- If respondents answer *Strongly disagree* or *Never* to a negatively worded item, answers should be recoded from a 1 to a 5.
- If respondents answer *Disagree* or *Rarely* to a negatively worded item, answers should be recoded from a 2 to a 4.
- The neutral response categories *Neither agree nor disagree* and *Sometimes* are not affected by negatively worded items and will always be coded as 3.
- If respondents answer *Most of the Time* or *Agree* to a negatively worded item, answers should be recoded from 4 to 2.
- If respondents answer *Always* or *Strongly Agree* to a negatively worded item, answers should be recoded from 5 to 1.
- The response category *Does not apply/Don't know* will always be coded with a 9.

Here is an example of computing a percent positive composite score for the composite *Communication About Patient Information*:

Example: There are four items in this composite—three are positively worded (items A1, A7, and A9) and one is negatively worded (item A5). Keep in mind that DISAGREEING with a negatively worded item indicates a POSITIVE response.

Calculate the percent positive response at the item level (see example in Table 3). In this example, averaging the item-level percent positive scores [(71% + 64% + 70% + 75%) / 4 = 70%] results in a percent positive composite score of 70 percent positive on *Communication About Patient Information*.

Table 3. Example of How To Calculate Item and Composite Percent Positive Scores

Four Items Measuring Communication About Patient Information	For Positively Worded Items, the # of “Strongly Agree” or “Agree” Responses	For Negatively Worded Items, the # of “Strongly Disagree” or “Disagree” Responses	Total # of Responses to the Item (Excluding NA/DK & Missing Responses)	Percent Positive Response to Item
Item A1-positively worded: “Important patient care information is clearly communicated across areas in this facility”	10	NA	14	10/14 = 71%
Item A5-negatively worded: “Key information about patients is missing when it is needed”	N/A	9	14	9/14 = 64%
Item A7-positively worded: “We share key information about patients as soon as it becomes available”	7	N/A	10	7/10 = 70%
Item A9-positively worded: “Within this facility, we do a good job communicating information that affects patient care”	8	N/A	12	8/12 = 75%
N/A = Not applicable	Average percent positive response across the 4 items = 70%			

Compare Results Within Your Site and to Other Sites

Another way to understand your results is to compare results within your facility. The Data Entry and Analysis Tool mentioned earlier in this chapter will produce comparisons by staff position and whether staff are typically in the room during surgeries, procedures, or treatments.

You may also want to compare your facility’s scores to the *Results From the 2015 AHRQ Ambulatory Surgery Center Survey on Patient Safety Culture Pilot Study*, which displays results from 59 U.S. ASCs that participated in a pilot study of the survey in early 2014. Item and composite-level results are shown for the 59 sites overall, by ASC type (multispecialty and single specialty), ASC ownership (hospital affiliated vs. not hospital affiliated), size (number of surgery/procedure rooms), and staff position (doctor/physician [not anesthesiologists]/surgeon, anesthesiologist, management, nurse, technician).

Technical Assistance

For free technical assistance on the *Ambulatory Surgery Center Survey on Patient Safety Culture*, email SafetyCultureSurveys@westat.com.

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PART TWO: SURVEY MATERIALS

1. Ambulatory Surgery Center Survey on Patient Safety Culture
2. Ambulatory Surgery Center Survey on Patient Safety Culture: Composites and Items

Ambulatory Surgery Center Survey on Patient Safety

This survey asks for your opinions about patient safety in ambulatory surgery centers (ASCs). ASCs are facilities where patients have surgeries, procedures, and treatments and are not expected to need an inpatient stay. Answer only about the facility where you received this survey. The survey will take about 10 minutes to complete.

- ▶ **Doctors** means all physicians (MDs or DOs), podiatrists, dentists, and others who perform surgeries, procedures, or treatments, including delivery of anesthesia, in this facility.
- ▶ **Staff** means **ALL others (clinical and nonclinical)** who work in your facility, whether they are employed directly by your facility or are contract/per diem/agency staff.
- ▶ **Patient safety** is the prevention of harm resulting from the processes of health care delivery. Such prevention includes reducing mistakes, errors, incidents, events, or problems that lead to patient harm or could negatively affect patients.
- ▶ If a question does not apply to you or you don't know the answer, please answer "Does not apply or Don't know."

SECTION A: Working in This Facility

▶ How often do the following statements apply to your facility?

	Never ▼	Rarely ▼	Some- times ▼	Most of the time ▼	Always ▼	Does not apply or Don't know ▼
1. Important patient care information is clearly communicated across areas in this facility	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
2. We feel comfortable asking questions when something doesn't seem right	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
3. We have enough staff to handle the workload	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
4. When we see someone with more authority doing something unsafe for patients, we speak up	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
5. Key information about patients is missing when it is needed	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
6. Our ideas and suggestions are valued in this facility	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
7. We share key information about patients as soon as it becomes available	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
8. There is enough time between procedures to properly prepare for the next one	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
9. Within this facility, we do a good job communicating information that affects patient care	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
10. We feel rushed when taking care of patients.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9

SECTION B: Teamwork and Training

► How much do you agree or disagree with the following statements?

	Strongly disagree ▼	Disagree ▼	Neither agree nor disagree ▼	Agree ▼	Strongly agree ▼	Does not apply or Don't know ▼
1. When someone in this facility gets really busy, others help out.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
2. Staff who are new to this facility receive adequate orientation	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
3. Staff feel pressured to do tasks they haven't been trained to do.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
4. Doctors and staff clearly understand each other's roles and responsibilities	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
5. We get the on-the-job training we need in this facility.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
6. Our facility allows disrespectful behavior by those working here	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
7. Staff get the refresher training they need.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
8. We work together as an effective team.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9

SECTION C: Organizational Learning/Response to Mistakes

► How much do you agree or disagree with the following statements?

	Strongly disagree ▼	Disagree ▼	Neither agree nor disagree ▼	Agree ▼	Strongly agree ▼	Does not apply or Don't know ▼
1. This facility actively looks for ways to improve patient safety	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
2. Staff are treated fairly when they make mistakes	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
3. We make improvements when someone points out patient safety problems	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
4. Learning, rather than blame, is emphasized when mistakes are made	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
5. Staff are told about patient safety problems that happen in this facility	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
6. We are good at changing processes to make sure the same patient safety problems don't happen again.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9

SECTION D: Near-Miss Documentation

▶ When something happens that could harm the patient, but does not, how often is it documented in an incident or occurrence report?

Never ▼ <input type="checkbox"/> 1	Rarely ▼ <input type="checkbox"/> 2	Sometimes ▼ <input type="checkbox"/> 3	Most of the time ▼ <input type="checkbox"/> 4	Always ▼ <input type="checkbox"/> 5	Does not apply or Don't know ▼ <input type="checkbox"/> 9
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SECTION E: Management Support for Patient Safety

▶ How much do you agree or disagree with the following statements?

	Strongly disagree ▼	Disagree ▼	Neither agree nor disagree ▼	Agree ▼	Strongly agree ▼	Does not apply or Don't know ▼
1. Managers encourage everyone to suggest ways to improve patient safety.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
2. Management examines near-miss events that could have harmed patients but did not.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
3. Management provides adequate resources to improve patient safety.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9

SECTION F: Overall Rating

▶ Please give your facility an overall rating on patient safety.

Poor ▼ <input type="checkbox"/> 1	Fair ▼ <input type="checkbox"/> 2	Good ▼ <input type="checkbox"/> 3	Very good ▼ <input type="checkbox"/> 4	Excellent ▼ <input type="checkbox"/> 5
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SECTION G: Communication in the Surgery/Procedure Room

▶ Are you typically in the surgery/procedure room during surgeries, procedures, or treatments?

- 1 Yes → *Continue below*
- 2 No → *Go to Section H*

▶ In the past 6 months, how often were the following actions done in your facility?

	Never ▼	Rarely ▼	Some-times ▼	Most of the time ▼	Always ▼	Does not apply or Don't know ▼
1. Just before the start of procedures, all team members stopped to discuss the overall plan of what was to be done.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
2. Just before the start of procedures, the doctor encouraged all team members to speak up at any time if they had any concerns.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9
3. Immediately after procedures, team members discussed any concerns for patient recovery	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 9

SECTION H: Background Questions

1. What is your position in this facility? Check ONE category that best applies to your job.

- a. **Anesthesiologist**
- b. **Doctor/Physician (excluding Anesthesiologists) or Surgeon**
- c. **Certified Registered Nurse Anesthetist (CRNA)**
- d. **Physician Assistant or Nurse Practitioner**
- e. **Management:** Medical Director, Center Director, Clinical Director/Administrator, Nurse Manager, Business Manager, Materials Manager, Office Manager, Other Manager
- f. **Nurse:** Registered Nurse (RN), Licensed Practical Nurse (LPN)/Licensed Vocational Nurse (LVN)
- g. **Technician:** Surgical/Scrub Technician, Sterile Processing Technician, X-Ray Technician, Other Technician
- h. **Other Clinical Staff or Clinical Support Staff:** Anesthesiologist Assistant, Nurse Assistant, Medical Assistant, Other Clinical Staff or Clinical Support Staff
- i. **Administrative, Clerical, or Business Staff:** Billing, Front Desk, Receptionist, Insurance Processor, Medical Records, Scheduler, Other Administrative or Clerical Staff Position
- j. **Other Position;** Please Specify: _____

2. Typically, how many hours per week do you work in this facility?

- a. 1 to 16 hours per week
- b. 17 to 31 hours per week
- c. 32 to 40 hours per week
- d. More than 40 hours per week

SECTION I: Your Comments

Please feel free to write any comments about how things are done or could be done in your facility that might affect patient safety.

Thank you for completing this survey.

Ambulatory Surgery Center Survey on Patient Safety Culture: Composites and Items

In this document, the items in the *Ambulatory Surgery Center Survey on Patient Safety Culture* are grouped according to the safety culture composites they are intended to measure. The item's survey location is shown to the left of each item. Negatively worded items are indicated. Reliability statistics (Cronbach's alpha) based on the pilot test data from 59 ASCs and 1,821 staff are provided for the composites.

1. Communication About Patient Information

(Never, Rarely, Sometimes, Most of the time, Always, Does not apply/Don't Know)

How often do the following statements apply to your facility?

- A1. Important patient care information is clearly communicated across areas in this facility.
- A5. Key information about patients is missing when it is needed. (Negatively worded)
- A7. We share key information about patients as soon as it becomes available.¹
- A9. Within this facility, we do a good job communicating information that affects patient care.

Reliability of this composite—Cronbach's alpha (4 items) = .71

2. Communication Openness

(Never, Rarely, Sometimes, Most of the time, Always, Does not apply/Don't Know)

How often do the following statements apply to your facility?

- A2. We feel comfortable asking questions when something doesn't seem right.
- A4. When we see someone with more authority doing something unsafe for patients, we speak up.
- A6. Our ideas and suggestions are valued in this facility.

Reliability of this composite—Cronbach's alpha (3 items) = .69

3. Staffing, Work Pressure, and Pace

(Never, Rarely, Sometimes, Most of the time, Always, Does not apply/Don't Know)

How often do the following statements apply to your facility?

- A3. We have enough staff to handle the workload.
- A8. There is enough time between procedures to properly prepare for the next one.
- A10. We feel rushed when taking care of patients. (Negatively worded)

Reliability of this composite—Cronbach's alpha (3 items) = .78

Note: Negatively worded questions should be reverse coded when calculating percent "positive" response, means, and composite scores.

¹ Adapted from Singer S. 2011. Safe Surgery 2015: South Carolina Tool 2: Surgical Safety Culture Survey. <http://www.safesurgery2015.org>. Accessed October 27, 2014.

4. Teamwork

(Strongly Disagree, Disagree, Neither Agree nor Disagree, Agree, Strongly Agree, Does not apply/Don't Know)

How much do you agree or disagree with the following statements?

- B1. When someone in this facility gets really busy, others help out.
- B4. Doctors and staff clearly understand each other's roles and responsibilities.
- B6. Our facility allows disrespectful behavior by those working here. (Negatively worded)
- B8. We work together as an effective team.

Reliability of this composite—Cronbach's alpha (4 items) = .74

5. Staff Training

(Strongly Disagree, Disagree, Neither Agree nor Disagree, Agree, Strongly Agree, Does not apply/Don't Know)

How much do you agree or disagree with the following statements?

- B2. Staff who are new to this facility receive adequate orientation.
- B3. Staff feel pressured to do tasks they haven't been trained to do. (Negatively worded)
- B5. We get the on-the-job training we need in this facility.
- B7. Staff get the refresher training they need.

Reliability of this composite—Cronbach's alpha (4 items) = .83

6. Organizational Learning – Continuous Improvement

(Strongly Disagree, Disagree, Neither Agree nor Disagree, Agree, Strongly Agree, Does not apply/Don't Know)

How much do you agree or disagree with the following statements?

- C1. This facility actively looks for ways to improve patient safety.
- C3. We make improvements when someone points out patient safety problems.
- C6. We are good at changing processes to make sure the same patient safety problems don't happen again.

Reliability of this composite—Cronbach's alpha (4 items) = .83

7. Response to Mistakes

(Strongly Disagree, Disagree, Neither Agree nor Disagree, Agree, Strongly Agree, Does not apply/Don't Know)

How much do you agree or disagree with the following statements?

- C2. Staff are treated fairly when they make mistakes.
- C4. Learning, rather than blame, is emphasized when mistakes are made.
- C5. Staff are told about patient safety problems that happen in this facility.

Reliability of this composite—Cronbach's alpha (3 items) = .78

8. Management Support for Patient Safety

(Strongly Disagree, Disagree, Neither Agree nor Disagree, Agree, Strongly Agree, Does not apply/Don't Know)

How much do you agree or disagree with the following statements?

- E1. Managers encourage everyone to suggest ways to improve patient safety.
- E2. Management examines near-miss events that could have harmed patients but did not.
- E3. Management provides adequate resources to improve patient safety.

Reliability of this composite—Cronbach's alpha (3 items) = .84

Composite scores are not calculated for the following three composites:

Near-Miss Documentation

(Never, Rarely, Sometimes, Most of the time, Always, Does not apply/Don't Know)

- D1. When something happens that could harm the patient, but does not, how often is it documented in an incident or occurrence report?

Overall Patient Safety Rating

(Poor, Fair, Good, Very good, Excellent)

- F0. Please give your facility an overall rating on patient safety.

Communication in the Surgery/Procedure Room

(Yes, No)

- G0. Are you typically in the surgery/procedure room during surgeries, procedures, or treatments?

(Never, Rarely, Sometimes, Most of the time, Always, Does not apply/Don't know)

In the past 6 months, how often were the following actions done in your facility?

- G1. Just before the start of procedures, all team members stopped to discuss the overall plan of what was to be done.
- G2. Just before the start of procedures, the doctor encouraged all team members to speak up at any time if they had any concerns.
- G3. Immediately after procedures, team members discussed any concerns for patient recovery.

FOR TECHNICAL ASSISTANCE OR QUESTIONS ABOUT THE AMBULATORY SURGERY CENTER SURVEY ON PATIENT SAFETY CULTURE, PLEASE EMAIL SAFETYCULTURESURVEYS@WESTAT.COM.

Appendix A. Sample Data Collection Protocol for the ASC Point of Contact: Paper Survey

Your Data Collection Tasks and Schedule for the *Ambulatory Surgery Center Survey on Patient Safety Culture*

Listed below are the schedule and tasks for administering the paper survey. Fill in the dates for your survey. Post this protocol in your office to remind you of the schedule.

Target Date	Activity
<p>One week before survey distribution</p> <p>Date: _____</p>	<p>Print and post publicity materials. Post survey flyers throughout the ASC (e.g., on bulletin boards, in work areas). Promote survey throughout the data collection period.</p>
<p>Beginning of Week 1</p> <p>(Start of Survey Data Collection)</p> <p>Date: _____</p>	<p>Distribute survey packets to all staff members on the survey distribution list. Consider distributing the packets at staff meetings and encourage survey participation. Caution staff, however, not to discuss their answers if they complete their surveys during the meeting.</p>
<p>Beginning of Week 2</p> <p>Date: _____</p>	<p>Distribute a second survey packet. If you are not using individual identifiers to track respondents, distribute second survey packets to all staff. If you are using identifiers to track respondents, distribute second survey packets only to nonrespondents.</p>
<p>Near End of Week 2</p> <p>Closeout Date: _____</p> <p>New Closeout Date: _____</p>	<p>Calculate preliminary response rate. If the rate is high enough, close out data collection at the end of Week 2.</p> <p>To increase your response rate, extend data collection by a few days or a week. If your response rate is lower than 50 percent, consider distributing reminder cards to all staff (or only to nonrespondents if you are using identifiers). It may be sufficient to remind staff in person to complete the survey.</p> <p>Close Out Extended Data Collection</p>

Appendix B. Sample Data Collection Protocol for the ASC Point of Contact: Web Survey

Your Data Collection Tasks and Schedule for the *Ambulatory Surgery Center Survey on Patient Safety Culture*

Listed below are the schedule and tasks for administering the Web survey. Fill in the dates for your survey. Post this protocol in your office to remind you of the schedule.

Target Date	Activity
One week before starting data collection Date: _____	Print and post publicity materials. Post survey flyers throughout the ASC (e.g., on bulletin boards, in work areas). Promote survey throughout the data collection period.
A few days before starting data collection Date: _____	Email the prenotification message about the survey. Send the invitation to all staff with email access in the ASC. You can share the message with staff without email access.
Beginning of Week 1 (Start of Survey Data Collection) Date: _____	Email the survey invitation (or announce the start of data collection). If the survey is hosted on the World Wide Web, include a hyperlink (URL) and password in the email invitation. If the survey is hosted on the ASC intranet, provide instructions for locating and taking the survey.
One week later Date: _____	Distribute 1st reminder notice. Email your prepared reminder notices and/or distribute reminder cards to all staff. If you are using identifiers to track respondents, email/distribute reminders only to nonrespondents. It may be sufficient to remind staff in person to complete the survey.
One week after 1st reminder Date: _____	Distribute 2nd reminder notice. Email your 2nd reminder notice to all staff (or only to nonrespondents if you are using identifiers). It may be sufficient to remind staff in person to take the survey.
Near End of Week 3 Closeout Date: _____	Calculate preliminary response rate. If the rate is high enough, close out data collection at the end of Week 3. To increase your response rate, extend data collection by a few days or a week. If your response rate is lower than 50 percent, email or distribute 3rd reminders to all staff (or only to nonrespondents if you are using identifiers). It may be sufficient to remind staff in person to complete the survey.
New Closeout Date: _____	Close Out Extended Data Collection

Appendix C. Sample Data Collection Protocol for the ASC Point of Contact: Mixed-Mode Survey

Your Data Collection Tasks and Schedule for the *Ambulatory Surgery Center Survey on Patient Safety Culture*

Listed below are the schedule and tasks for administering the survey when you are using both Web and paper surveys at the same ASC. Fill in the dates for your survey. Post this protocol in your office to remind you of the schedule.

Target Date	Activity
One week before starting data collection Date: _____	Print and post publicity materials. Post survey flyers throughout the ASC (e.g., on bulletin boards, in work areas). Promote survey throughout the data collection period.
A few days before starting data collection Date: _____	Email the prenotification message about the Web survey. Send the invitation to all staff with email access in the ASC. You can share the message with staff without email access.
Beginning of Week 1 (Start of Survey Data Collection) Date: _____	Email the survey invitation (or announce the start of data collection). If the survey is hosted on the World Wide Web, include a hyperlink (URL) and password in the email invitation. If the survey is hosted on the ASC intranet, provide instructions for locating and taking the survey.
Beginning of Week 2 Date: _____	Distribute 1st reminder notice. Email your prepared reminder notices and/or distribute reminder cards to all staff. If you are using identifiers to track respondents, email/ distribute reminders only to nonrespondents. It may be sufficient to remind staff in person to take the survey.
Beginning of Week 3 Date: _____	Distribute paper survey packets. Distribute paper survey packets to all staff (or only to nonrespondents if you are using identifiers).
Near End of Week 3 Closeout Date: _____	Calculate preliminary response rate. If the rate is high enough, close out data collection at the end of Week 3. To increase your response rate, extend your data collection by a few days or a week and distribute 2nd reminders to all staff (or only to nonrespondents if you are using identifiers). It may be sufficient to do in-person reminders.
New Closeout Date: _____	Close Out Extended Data Collection



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