MEDICAL DFFICE SURVEY Surveys on Patient Safet Culture ON PATIENT SAFETY CULTURE USER'S GUIDE



## AHRQ Medical Office Survey on Patient Safety Culture: User's Guide

#### **Prepared for:**

Agency for Healthcare Research and Quality U.S. Department of Health and Human Services 5600 Fishers Lane Rockville, MD 20857 http://www.ahrq.gov

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## Contents of This Survey's User's Guide

The AHRQ *Medical Office Survey on Patient Safety Culture*, this User's Guide, and other toolkit materials are available on the AHRQ Web site (<u>http://www.ahrq.gov/professionals/quality-patient-safety/patientsafetyculture/medical-office/index.html</u>). These materials are designed to provide medical offices 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.

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## **Chapter 1. Introduction**

As medical offices continually strive to improve patient safety and quality, medical office 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 Medical Office Survey on Patient Safety Culture

#### Purpose

The Agency for Healthcare Research and Quality (AHRQ) sponsored the development of the *Medical Office Survey on Patient Safety Culture* as a new survey in the suite of AHRQ Surveys on Patient Safety Culture. The survey is designed specifically for outpatient medical offices and asks providers and staff for their opinions about the culture of patient safety and health care quality at their medical offices. The survey can be used to:

- Raise provider and 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**

Under contract to AHRQ, a survey design team from Westat conducted the following activities to identify key composites of medical office safety culture, relevant background questions about providers and staff and medical office characteristics, and appropriate terms and words to use in the survey:

- Reviewed the literature, including existing surveys, pertaining to patient safety, health care quality, ambulatory medicine, medical office errors and quality-related events, error reporting, safety climate and culture, and organizational climate and culture.
- Conducted background interviews with more than two dozen experts in the field of medical office practice and patient safety and with medical office providers and staff.

Based on these activities, the design team developed draft survey items to measure the key composites and conducted cognitive interviews with medical office providers and staff. Cognitive interview participants included physicians, other providers, office managers, nurses, medical assistants, billing staff, receptionists, schedulers, and other staff. The design team also received input on the draft survey from a 12-member Technical Expert Panel consisting of representatives from AHRQ, health care systems, university medical schools, ambulatory medical office professional associations, and practice-based research networks.

The draft survey was pilot tested with more than 4,100 medical office providers and staff from more than 200 medical offices across the United States. Participating medical offices varied by number of staff, specialty (primary care, other specialty, or multi-specialty), and geographic location. All providers and staff within each medical office were asked to complete the survey.

Analysts examined the reliability and factor structure of the safety culture composites. Based on these analyses, the final items and composites in the *Medical Office Survey on Patient Safety Culture* were determined to have sound psychometric properties (Sorra, et al., 2008).

## Audience for Survey Administration

#### **Medical Office Definition**

The purpose of the *Medical Office Survey on Patient Safety Culture* is to measure the culture of patient safety in a single medical office in a specific location. A medical office should be a **single** outpatient facility in one geographic location. A medical practice or health care system may have multiple medical offices in different locations, but each unique location would be considered a separate medical office for the purposes of the survey and for feedback. In addition, a medical office could be located in a building containing multiple medical offices, but each office in the building would be considered a separate medical office for the purposes of the survey. If providers in the medical office share some or all administrative staff, such as receptionists and schedulers, and share some or all clinical support staff, you may consider them one office.

You may, of course, choose to administer the survey to multiple medical offices in your practice, health care system, or building. If so, each medical office should be identified as a separate office so each site can receive its own results in addition to overall results across sites. Medical offices that are part of a practice or health care system can have their data aggregated with others for feedback purposes.

The survey was designed to be appropriate for any specialty. Your office may provide primary care services only, other specialty care services only, or a mix of primary and specialty care services.

#### Size

We recommend administering the survey in medical offices with at least five providers and staff unless the small medical office is part of a larger organization. We define providers as physicians (M.D. or D.O.), physician assistants, nurse practitioners, and other providers licensed to diagnose medical problems, treat patients, and prescribe medications. Providers and staff in small offices may not feel that their answers are anonymous and may not be willing to complete the survey or answer honestly. In small medical offices, you can use the survey as a tool to initiate discussion about patient safety issues.

We also recommend that there be **at least five respondents in an office** before feedback reports are created, to protect anonymity. Small medical offices that are part of a larger system can have their data aggregated with other offices for feedback purposes.

#### **Identification of Survey Participants**

The survey is designed to be administered to all providers and staff in your medical office—from billing staff and receptionists to nurses and physicians. All providers and staff asked to complete the survey should have enough knowledge about your medical office and its operations to provide informed answers to the survey questions. It is expected, though, that some providers and staff will not be informed enough to answer all the questions; therefore, the survey includes a "Does Not Apply or Don't Know" response option. Overall, when considering who should complete the survey, ask yourself:

- Does this person know about *day-to-day activities* at this medical office?
- Does this person interact regularly with providers and staff working at this medical office?

#### Providers and Staff Working in Multiple Participating Medical Offices

Medical practices or systems may have some providers and staff who work in more than one medical office. In such cases, distribute the survey to them in the office *where they spend most of their time* and instruct them to answer about that office location only. If they spend an equal amount of time in multiple medical offices, choose one office for them to receive the survey in and instruct them to answer the survey only for that medical office.

## **Patient Safety Culture Composites**

The *Medical Office Survey on Patient Safety Culture* emphasizes patient safety and health care quality issues. There are 38 items grouped into 10 composite measures or composites. The survey also includes questions that ask respondents about problems exchanging information with other settings and about access to care. In addition, respondents are asked to rate their medical office in five areas of health care quality (patient centered, effective, timely, efficient, and equitable) and to provide an overall rating on patient safety.

Patient Safety Culture Composite	Definition: The extent to which
1. Communication About Error	Providers and staff are willing to report mistakes they observe and do not feel like their mistakes are held against them, and providers and staff talk openly about office problems and how to prevent errors from happening.
2. Communication Openness	Providers in the office are open to staff ideas about how to improve office processes, and staff are encouraged to express alternative viewpoints and do not find it difficult to voice disagreement.
3. Office Processes and Standardization	The office is organized, has an effective workflow, has standardized processes for completing tasks, and has good procedures for checking the accuracy of work performed.
4. Organizational Learning	The office has a learning culture that facilitates making changes in office processes to improve the quality of patient care and evaluates changes for effectiveness.
5. Overall Perceptions of Patient Safety and Quality	The quality of patient care is more important than getting more work done, office processes are good at preventing mistakes, and mistakes do not happen more than they should.
6. Owner/Managing Partner/Leadership Support for Patient Safety	Office leadership actively supports quality and patient safety, places a high priority on improving patient care processes, does not overlook mistakes, and makes decisions based on what is best for patients.
7. Patient Care Tracking/Followup	The office reminds patients about appointments, documents how well patients follow treatment plans, follows up with patients who need monitoring, and follows up when reports from an outside provider are not received.
8. Staff Training	The office gives providers and staff effective on-the-job training, trains them on new processes, and does not assign tasks they have not been trained to perform.
9. Teamwork	The office has a culture of teamwork, mutual respect, and close working relationships among staff and providers.
10. Work Pressure and Pace	There are enough staff and providers to handle the patient load, and the office work pace is not hectic.

Table 1. Patient Safety Culture Composite and Definitions

#### **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 medical offices 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 medical office 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 medical office plans to submit to the Medical Office SOPS Database, you must recode the modified staff positions so they crosswalk back to the original survey's staff positions.

## Adding Items

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

## **Chapter 2. Getting Started**

Before you begin, it is important to understand the tasks involved in collecting survey data and decide who will manage the project. This chapter is designed to guide you through the planning and decisionmaking stage of your project.

## **Determine Available Resources and Project Scope**

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

- How much money and/or resources are available to conduct this project?
- Who within the medical office, practice, or system is available to work on this project?
- When do the survey results need to be completed and available?
- Do we have the technical capabilities to conduct this project within the medical office 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**

The decision to use a paper survey, a Web survey (either via the Internet or through your organization's intranet), or mixed mode should be based on several important factors. Comparative data for the medical office survey show that more medical offices are administering the survey via Web even though the average response rates are slightly higher with paper surveys (Famolaro, et al., 2016). To help you decide which data collection method is most appropriate for your hospital, consider the following:

- 1. **Response rates.** Response rates are important because low response rates may limit your ability to generalize results to your entire medical office. When response rates are low, there is a danger that the large number of providers and 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 provider and staff views. Comparative data for the medical office survey (Famolaro, et al., 2016) show that response rates are slightly higher with paper surverys (78 percent) compared with Web only (68 percent).
- **2. Your medical office's experience with Web surveys.** You should also consider the following factors when thinking about the possible use of Web surveys:
  - Access to computers or email. If providers and staff have limited access to computers or do not have medical office established email addresses, this may lead to low response rates or difficulty administering successful Web surveys. They may also be concerned about the privacy of their responses if they share computers and may decide not to take the survey at work.
  - Medical office experience conducting Web surveys. If you have had previous success surveying your office providers and staff online and achieved high response rates, you may prefer to administer a Web survey.

- **3.** Logistics. In single medical offices, the logistics of administering paper surveys may be manageable. If you plan to administer the survey in multiple offices, Web surveys offer several advantages:
  - 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 medical office resources. If you plan to administer the survey in a number of offices, 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.
  - Test it thoroughly to ensure that the resulting data file 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 medical offices, how you will identify responses from each office.

#### **Individual Identifiers**

Providers and 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 offices. You want to ensure that respondents feel comfortable reporting their true perceptions and confident that their answers cannot be traced back to them.

#### **Medical Office Identifiers**

If you are surveying multiple medical offices, you *will* need to use *office-level* identifiers to track surveys from each office. Doing so will allow you to produce feedback reports for each office. 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 office.

**Print a medical office identifier on the survey.** You can print a medical office identifier on the surveys by giving each office a unique form number (e.g., Form 1, Form 2, Form 3) to identify different offices. Print the identifier on the survey (e.g., lower left corner of the back page). Be

aware, however, that some providers and staff members will be so concerned about the confidentiality of their responses that they might mark out the site identifier or form number.

#### Web Surveys

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

## Decide Whether To Use an Outside Vendor

You may want to use an outside company or vendor to handle 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 your results.
- Providers and staff may feel their responses will be more confidential when their surveys are returned to an outside vendor.
- Vendors typically also 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 medical office with better quality results faster than if you were to do the tasks yourself.

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

- Look for a vendor with expertise in survey research.
- Determine whether the vendor can handle all the project components. Some vendors will be able to handle your data analysis and feedback report needs; others will not.
- 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 and they understand your expectations.
- 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 or Web survey. Plan for **at least** 8 weeks from the beginning of the project to the end.

Task Timeline for Project Planning		-	aration		Data	ion	R	alys and	ts
Week	Planning	1	2	3	4	5	6	7	8
Getting Started – Ch. 2	L		Г		1				
Determine Available Resources and Project Scope	$\checkmark$								<u> </u>
Decide on Your Data Collection Method	$\checkmark$								
Decide Whether To Use Survey Identifiers	$\checkmark$								
Decide Whether To Use an Outside Vendor	$\checkmark$								
Plan Your Project Schedule	$\checkmark$								
Form a Project Team	$\checkmark$								
Establish a Point of Contact	$\checkmark$								
Mode of Survey Administration									
Paper Surveys – Ch. 3									
Decide How Surveys Will Be Distributed and Returned	$\checkmark$								
Publicize and Promote the Survey		↓				1			
Develop, Print, and Assemble Survey Materials		<b>\</b>							
Distribute First Survey				$\checkmark$					
Track Responses and Preliminary Response Rates				+		1			
Distribute Second Survey					✓				
Close Out Data Collection						✓			
Web Surveys – Ch. 4									
Design and Pretest Web Survey		Î	-						
Publicize and Promote the Survey		↓				1			
Send Prenotification Email			✓						
Send Survey Invitation Email				$\checkmark$					
Track Responses and Preliminary Response Rates				+		→			
Send Reminder Survey Invitation Email(s)					$\checkmark$				
Close Out Data Collection						$\checkmark$			
Analyzing Data and Producing Reports – Ch. 5			•						
Identify Incomplete and Ineligible Surveys							$\checkmark$		
Calculate the Final Response Rate							✓		
Prepare the Data File							$\checkmark$		
Analyze the Data and Produce Reports of the Results							Å		->

#### Figure 1. Task Timeline for Project Planning for a Single Medical Office

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

- Establish a system-level point of contact (POC) as well as a POC in each medical office.
- Allow more time to assemble survey materials (e.g., 4 weeks instead of 2 weeks for paper or 3 weeks for Web).
- Add a week or more to the data collection period.
- Add a week or more to the data analysis 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 medical office staff, health system headquarters staff, outsourced vendor staff, or a combination. Their responsibilities will include the following:

- **Planning and budgeting**—Determine the scope of the project given available resources, plan project tasks, and monitor the budget.
- **Establishing contact persons**—Assign a POC in the medical office to support survey administration, maintain open communication throughout the project, and provide assistance.
- **Preparing publicity materials**—Create fliers, posters, and email and intranet messages to announce and promote the survey in the medical office.
- **Developing a Web survey instrument** (if conducting a Web survey)—Design the instrument, program the survey, and pretest the instrument.
- **Preparing paper survey materials** (if conducting a paper survey)—Print surveys, prepare postage-paid return envelopes and labels, and assemble these components for your survey distribution.
- **Distributing and receiving paper survey materials** (if conducting a paper survey)— Distribute surveys and reminder notices and handle receipt of completed surveys.
- **Tracking survey responses and calculating preliminary response rates**—Monitor survey returns and calculate preliminary response rates. If you use individual identification numbers on the surveys to track nonrespondents (although we do not recommend this approach), identify the nonrespondents who should receive followup materials.
- Handling data entry, analysis, and report preparation—Review survey data for respondent errors and data entry errors in electronic data files, conduct data analysis, and prepare a report of the results.
- **Distributing and discussing feedback results with providers and staff**—Disseminate results broadly to increase their usefulness.
- **Coordinating with and monitoring an outside vendor (optional)**—Outline the requirements of the project to solicit bids from outside vendors, select a vendor, coordinate tasks to be completed in-house versus by the vendor, and monitor progress to ensure that the necessary work is completed and deadlines are met.

## **Establish a Point of Contact**

A POC should be appointed from the project team (e.g., the medical office manager). We recommend including contact information for the POC in all survey materials in case respondents have questions about the survey. The office POC has several duties, including:

- Answering questions about survey items, instructions, or processes.
- Responding to provider and staff comments and concerns.
- Helping to coordinate survey distribution and receipt of completed surveys if paper surveys are used.

- Communicating with outside vendors as needed.
- Communicating with other POCs as needed.

If you administer the survey at multiple offices, 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 to promote and publicize your survey, describe survey administration steps, and provide a detailed description of how to develop and assemble the survey materials.

## **Distribute Surveys**

We recommend that a designated point of contact distribute the surveys to medical office providers and staff. To promote participation, you can distribute the surveys at office meetings and serve refreshments, following these guidelines for distributing surveys:

- Provide explicit instructions for completing the survey.
- Inform providers and 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 providers and staff while answering the survey.
- Permit them to complete the survey **during work time** to emphasize that medical office leaders support the data collection effort.

## Arrange for Returning Surveys

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

There are several options for respondents to return completed paper surveys:

- **Drop-boxes:** Surveys can be returned to locked drop-boxes placed throughout your medical office.
- **Interoffice mail:** Surveys can be returned via interoffice mail to a designated POC within your medical office or to a corporate headquarters address.
- **Mail:** If you use a vendor or do not have an interoffice mail system, providers and staff can mail their completed surveys to the outside vendor or designated POC. If surveys are returned through the mail, you will need to account for return postage in your budget.

Whatever process you decide, it should help reassure providers and staff that no one at their medical office will see the completed surveys.

## Publicize and Promote the Survey

We strongly recommend publicizing the survey before and during data collection. Be sure to advertise that medical office and/or health system executive leaders support the survey. Publicity activities may include:

- Posting fliers or posters at the medical office, sending providers and staff emails, and posting information about the survey on a medical office intranet,
- Promoting the survey during office meetings, and
- Having a senior leader or executive send a supportive email or letter of support for the data collection effort.

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

- Endorsement of the survey from your leadership
- Clear statement about the purpose of the survey, which is to assess providers and staff attitudes and opinions about the culture of patient safety in your medical office
- Description of how the collected data will be used to identify ways to improve patient safety culture
- Assurance 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)
- Introduction to the survey vendor, if you have chosen to use a vendor
- Contact information for the designated POC

## 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. If you obtained a letter of support from your leadership, you can use this as your prenotification letter.
- 2. First paper survey. About 1 week after publicizing the survey, distribute a survey packet to each provider and staff member that includes the survey, a supporting cover letter, and a return envelope. If you want providers and staff to return their surveys by mail, include a preaddressed postage-paid envelope.
- **3.** Second survey. To promote a higher response, a week after the first survey is distributed, distribute a second survey to everyone at your medical office (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 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 providers and staff who received the survey (denominator).

Number of surveys returned Number of eligible providers and 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 medical office.

**5.** Close out data collection. 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.

#### Track and Maximize Response Rates

When sending out your first paper survey, be sure to document the number of providers and staff that you distribute the survey to, which will be the denominator for your response rate.

Offering incentives can be a good way to increase responses to a survey, because respondents often ask, "What's in it for me?" You may want to offer individual incentives, such as a raffle for cash prizes or gift certificates, or you can offer group incentives, such as catered lunches for medical offices with at least a 75 percent response rate. Be creative and think about what would motivate your providers and staff to complete the survey.

## **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.

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

#### **Points of Contact Letters and Instructions**

Send a letter to each office or system-level point of contact 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 leader or executive. Provide the points of contact with the data collection protocol that describes their tasks, along with a proposed timeline. (A sample data collection protocol is in Appendix A.)

#### **Cover Letter in First Survey Packet**

The cover letter should be on official medical office letterhead and signed by a senior leader or executive. The cover letter should address the following points:

- Why the medical office is conducting the survey, how survey responses will be used, and why their response is important
- How much time is needed to complete the survey
- Assurance 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 medical office point of contact (and system-level point of contact, if applicable)

#### Sample Cover Letter Text for Paper Survey

The enclosed survey is part of our medical office's efforts to better address patient safety. All providers and staff in the medical office are receiving 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 medical office. 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 and return it 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 e-mail address*]. Thank you in advance for your participation in this important effort.

#### **Cover Letter in Second 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 say: "About *X* days ago a copy of the *Medical Office Survey on Patient Safety* was distributed to you and others at your medical office. 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 providers and staff to 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

To ensure that every staff member receives a survey, consider outer envelope labels with staff names even if the survey itself is completed anonymously. Labels also may be used to place medical office 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 providers and staff will return 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 the number of initial **and** followup surveys 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 medical office and/or health system executive leaders support the survey. Publicity activities may include:

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

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 leadership
- Clear statements about the purpose of the survey, which is to assess providers and staff attitudes and opinions about the culture of patient safety in your medical office
- Description of how the collected data will be used to identify ways to improve patient safety culture
- Assurance 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)
- Introduction to the survey vendor, if you have chosen to use a vendor
- Contact information for the designated point of contact (POC)

## Follow Survey Administration Steps

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

- 1. **Prenotification email.** Email providers and 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 providers and staff email addresses. If you obtained a letter of support from your leadership, you can use this as your prenotification email.
- 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 medical office intranet), along with the individual's

password, if applicable. Provide instructions about whom to contact for help 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 the followup email reminder messages slightly different to capture recipients' attention. In the reminders, also include the original message and instructions for accessing the survey.

If you use individual identifiers, you can send 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 providers and staff who received the survey (denominator).

Number of surveys returned Number of eligible providers and staff who received a survey

If providers or 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 medical office.

**5.** Close out data collection. 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 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.

#### **Track and Maximize Response Rates**

When sending out your survey, be sure to document the number of providers and staff that you send the survey to, which will be the denominator for your response rate.

Offering incentives can be a good way to increase responses to a survey, because respondents often ask, "What's in it for me?" You may want to offer individual incentives, such as a raffle for cash prizes or gift certificates, or you can offer group incentives, such as catered lunches for medical offices with at least a 75 percent response rate. Be creative and think about what would motivate your providers and staff to complete the survey.

## **Develop Survey-Related Materials**

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

#### **Points 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 leader or executive. We also recommend that you provide the POCs with a data collection protocol that describes their tasks, along with a proposed timeline. (Sample data collection protocols are in Appendixes B and C.)

#### **Prenotification Email**

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

- Have it signed by a senior leader or executive.
- Use a name or email address in the "From" line that will be easily recognizable to providers and 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 medical office
  - 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)
  - Introduction to survey vendor (if applicable)

#### **Survey Invitation**

The survey invitation email should also be signed by a senior 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 medical office intranet, provide instructions for accessing the survey.

The survey invitation message should include the following information:

- Brief restatement of why the medical office is conducting the survey, how it will use the data, and why their response is important
- How much time is needed to complete the survey
- Assurance 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)
- Contact information for the medical office 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.

#### Sample Survey Invitation Email

You are invited to participate in an important survey that is part of our medical office's patient safety program. All providers and 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 medical office. 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...

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

[*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.

#### **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 conduct 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 *Medical Office Survey on Patient Safety* was emailed to you and others at our medical office. If you have already completed the survey, thank you very much and please disregard this reminder." If you use individual identifiers, you can send the reminders to nonrespondents only.

## **Design and Pretest the Web-Based Survey**

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 Web survey options available to you. Below we present a number of important features for designing a Web survey.

#### 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-based survey follows the principles below:

- **1. Do not force respondents to answer every question.** There are several good reasons for allowing providers and 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.
- 2. Display notifications for questions with missing answers before the respondent leaves the Web page. To help prevent missing data, it is a good idea to display notifications for questions with missing answers before the respondent proceeds to the next Web page. Do not force the respondent to answer the question, but let the respondent see which questions are missing answers.
- **3. Decide on the number of questions on each Web page.** Several options exist for Web page layouts of the survey:
  - If possible, use one Web page for each section of the survey. Most Web survey applications have space for 6 or more questions on an individual page without scrolling, which will accommodate some of the sections. For larger sections of the survey (i.e., Sections A, C, and D), we recommend you display the questions in chunks of 5 or 6 questions per individual Web page. It is better to avoid vertical scrolling if possible since respondents can miss questions not visible on the Web page and just proceed to the next section.

- We do not recommend that you format the survey with one item per page. This increases the time it takes to complete the survey.
- We do not recommend that you program the survey so that respondents must scroll horizontally to see parts of the survey. This can contribute to response error if respondents overlook parts of the survey, and it may annoy respondents.
- 4. Make sure the response categories (e.g., Strongly disagree, Disagree) appear on every Web page. Response errors may occur if the respondent cannot see the response categories when the question appears across more than one Web page. Be sure that the response categories are repeated as frequently as needed 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 as the screen resolution gets larger.
- **5. Design for mobile devices.** It is important to test your Web survey on different types of mobile devices (e.g., tablet computers, smart phones) to ensure that it is viewable and can be taken on those devices.
- 6. Do not indicate progress by Web page. Current survey research also suggests that for short surveys, progress indicators (e.g., a progress bar) could be counterproductive since they ofen do not display progress accurately. Rather, it is recommended to tell the respondents that the survey takes about 10 to 15 minutes to complete. If, however, you want some indication of where the respondent is in the survey, you can have a section indicator that shows which section of the survey the respondent is currently completing.
- 7. (Optional) Allow respondents to print a hard copy of the survey and complete it on paper. 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 that it can be printed in paper form, but test this functionality thoroughly to ensure that it 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) 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 identifiers, find a way to include the identifier on the printed version of the survey or otherwise identify the paper response.

#### 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 providers and staff taking the survey at your medical office. 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 providers and 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 data file 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 providers and 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, 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 in more than one medical office, 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 data file. We recommend that you exclude returned surveys that:

- Are completely blank or contain responses only for the background demographic questions.
- 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 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:

Number of surveys returned – incompletes Number of eligible providers and 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. Ineligible providers and staff are those who were not employed or on contract with your medical office at the time of the survey.

## 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 (Paper Only)

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 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.

Problematic responses may also occur if respondents do not properly follow the skip logic in Section E: Owner/Managing Partner/Leadership Support. Respondents who answer *Yes* to question A. "Are you an owner, a managing partner, or in a leaderships position..." are instructed to continue to the next section. In some cases these respondents may ignore the instruction and answer the subsequent questions in Section E anyway. To prevent bias and ensure validity of the question data, we recommend that their responses to questions E1–E4 be removed from the final data file.

#### **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<sup>®</sup>, SPSS<sup>®</sup>, or Microsoft Excel<sup>®</sup>, or you can create a text file that can be easily imported into a data analysis software program. If you enter data into a Microsoft Excel<sup>®</sup> file, each row in your data file should represent one response 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 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.

#### Medical Office Data Entry and Analysis Tool

AHRQ has developed a Medical Office Data Entry and Analysis Tool that works with Microsoft Excel<sup>®</sup> 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 <u>DatabasesOnSafetyCulture@westat.com</u>.

#### Include Individual Identifiers in Your Data File

If you used individual identifiers on your surveys, enter the identification number 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, you will need to 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 survey 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 referred to in the comment. You may also want to analyze the comments and identify common themes (e.g., communications, staff training, teamwork). You can then assign code numbers to match comment 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

#### Minimum Number of Respondents to Produce Reports

To protect the confidentiality of individual respondents, **do not provide any type of survey feedback report for a medical office if fewer than five respondents have answered the survey.** Also, if 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.

Ideally, feedback should be provided broadly—to management, boards of directors, committees, providers and 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. In any feedback reports, include the following types of information:

- How the survey was conducted (paper, Web, survey administration period) and your response rate.
- Background characteristics of all respondents—their position and weekly hours—to help others understand who responded to the survey.
- Breakouts of results by position or tenure. Do not report results for any background characteristic category (e.g., nurses) if there are fewer than three respondents in that category and if there are fewer than three respondents to an item in that category.
  - It is possible to still provide breakout results when you have fewer respondents by collapsing categories together. For example, if only two employees reported that they work at the medical office for 1 to 4 hours per week, you can combine those respondents with respondents reporting they work 5 to 16 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 the 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 are reported as a separate category (*Neither* or *Sometimes*).

Most of the survey's 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 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.

Item C5. In this office, we treat each other with respect.				
Response	Frequency (Number of Responses)	Response Percentage	Combined Percentages	
1 = Strongly disagree	1	10%	200/ Negativa	
2 = Disagree	2	20%	30% Negative	
3 = Neither	1	10%	10% Neutral	
4 = Agree	4	40%	60% Depitive	
5 = Strongly agree	2	20%	60% Positive	
Total	10	100%	100%	
9 = Does not apply/Don't know and Missing (did not answer)	3	-	-	
Total Number of Responses	13	-	-	

Table 2. Example of How To Compute Frequency Percentages

Survey items from section A and B contain six-point frequency scales. To calculate the frequency percentages for items in section A and B, combine the response categories of *Not in the past 12 months/Once or twice in the past 12 months/Several times in the past 12 months* or *No problems in the past 12 months/Problems once or twice in the past 12 months/Problems several times in the past 12 months*. Percent negative and neutral are not calculated for these sections. An example of how to calculate results for these sections is presented in Table 3.

Table 3. Example of How To Compute Frequency Percentages for Survey Sections With Six-PointScales

Item A1. A patient was unable to get an appointment within 48 hours for an acute/serious problem.			
Response	Frequency (Number of Responses)	Response Percentage	Combined Percentages
1 = Not in the past 12 months	20	50%	
2 = Once or twice in the past 12 months	10	25%	85% Positive
3 = Several times in the past 12 months	4	10%	
4 = Monthly	4	10%	10%
5 = Weekly	1	3%	3%
6 = Daily	1	3%	3%
Total	40	100%	100%
9 = Does not apply/Don't know and Missing (did not answer)	5	-	-
Total Number of Responses	45	_	-

Note: Totals may not sum to 100% due to rounding.

#### **Calculate Item and Composite Percent Positive Scores**

It can be useful to calculate an overall score for items within a composite. To calculate your medical office's score on a particular safety culture composite, average the percent positive response 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 *Medical Office Survey on Patient Safety Culture: Composites and Items*.

Table 4 provides guidelines for reverse coding negatively worded items.

Table 4. Example of How To Reverse Code Negatively Worded Items

Response Option for Negatively Worded Items	Original Coding	Recode
Strongly disagree or Never	1	5
Disagree or Rarely	2	4
Neither or Sometimes	3	3
Agree or Most of the time	4	2
Strongly agree or Always	5	1

Here is an example of computing a percent positive composite score for the composite *Office Processes and Standardization*:

• There are four items in this composite—two are positively worded (items C9 and C15) and two are negatively worded items C8 and C12). 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 5). In this example, averaging the item-level percent positive scores (46% + 52% + 46% + 56%/4=50%) results in a composite score of 50 percent positive on *Office Processes and Standardization*.

Four Items Measuring Office Processes and Standardization	For Positively Worded Items, # of "Strongly agree" or "Agree" Responses	For Negatively Worded Items, # of "Strongly disagree" or "Disagree" Responses	Total # of Responses to item (Excluding NA/DK & Missing Responses)	Percent Positive Response to Item
Item C9-positively worded:	24	NA	52	24/52 = 46%
"We have good procedures for checking that work in this office was done correctly"				
Item C15-positively worded:	26	NA	50	26/50 = 52%
"Staff in this office follow standardized processes to get tasks done"				
Item C8-negatively worded:	NA	22	48	22/48 = 46%
"This office is more disorganized than it should be"				
Item C12-negatively worded:	NA	28	50	28/50 = 56%
"We have problems with workflow in this office"				
NA = Not applicable	Average percent pos	itive response ac	ross the 4 items	s = 50%

Table 5. Example of How To Calculate Item and Composite Percent Positive Scores

#### **Compare Results Within Your Medical Office and to Other Medical Offices**

Another way to understand your results is to compare results within your medical office. The Medical Office Data Entry and Analysis Tool mentioned earlier in this chapter will produce comparisons by provider and position and tenure at the medical office level.

Many medical offices using the survey have expressed interest in comparing their results to other medical offices. In response, AHRQ has established the *Medical Office Survey on Patient Safety Culture Database*. This database is a central repository for survey data from medical offices that have administered the AHRQ patient safety culture survey instrument. If you choose to submit your data, you will be able to compare your medical office results with the overall medical office database results.

#### Submitting to the SOPS Medical Office Database

If your medical office is interested in submitting its data to the SOPS Medical Office Database, send an email to <u>DatabasesOnSafetyCulture@westat.com</u> or go to <u>www.ahrq.gov/SOPS</u>.

## **Technical Assistance**

For free technical assistance on the *Medical Office Survey on Patient Safety Culture*, email <u>SafetyCultureSurveys@westat.com</u>.

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# Appendix A. Sample Data Collection Protocol for the Medical Office Point of Contact: Paper Survey

## Your Data Collection Tasks and Schedule for the *Medical Office Survey on Patient Safety*

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
Two weeks before survey distribution Date:	<b>Print and post publicity materials.</b> Post survey fliers throughout the medical office (e.g., on bulletin boards, in work areas). Promote survey throughout the data collection period.
Beginning of Week 1 (Start of Survey Data Collection) Date:	Distribute survey packets to all providers and staff members on the survey distribution list. Consider distributing the packets at office meetings and encourage survey participation. Caution them, however, not to discuss their answers if they complete their surveys during the meeting.
Beginning of Week 2 Date:	<b>Distribute a second survey packet.</b> If you are not using individual identifiers to track respondents, distribute second survey packets to all providers and staff. If you are using identifiers to track respondents, distribute second survey packets only to nonrespondents.
Near End of Week 2 Closeout Date:	Calculate preliminary response rate. If the rate is high enough, close out data collection at the end of Week 2. 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 providers and staff (or only to nonrespondents if you are using identifiers). It may be sufficient to remind them in person to complete the survey.
New Closeout Date:	Close Out Extended Data Collection

# Appendix B. Sample Data Collection Protocol for the Medical Office Point of Contact: Web Survey

## Your Data Collection Tasks and Schedule for the *Medical Office Survey on Patient Safety*

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
Two weeks before survey distribution Date:	<b>Print and post publicity materials.</b> Post survey fliers throughout the medical office (e.g., on bulletin boards, in work areas). Promote survey throughout the data collection period.
One week before starting data collection Date:	<b>Email the prenotification message about the survey.</b> Send the invitation to all providers and staff with email access in the medical office. You can share the message with providers and staff without email access.
Beginning of Week 1 (Start of Survey Data Collection) Date:	<b>Email the survey invitation (or announce the start of data collection).</b> 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 medical office intranet, provide instructions for locating and taking the survey.
Beginning of Week 2 Date:	<b>Distribute 1st reminder notice.</b> Email your prepared reminder notices and/or distribute reminder cards to all providers and staff. If you are using identifiers to track respondents, email/distribute reminders only to nonrespondents. It may be sufficient to remind them in person to complete the survey.
Beginning of Week 3 Date:	<b>Distribute 2nd reminder notice.</b> Email your 2nd reminder notice to all providers and staff (or only to nonrespondents if you are using identifiers). It may be sufficient to remind them 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 providers and staff (or only to nonrespondents if you are using identifiers). It may be sufficient to remind them in person to complete the survey.
New Closeout Date:	Close Out Extended Data Collection

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

### Your Data Collection Tasks and Schedule for the *Medical Office 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 medical office. Fill in the dates for your survey. Post this protocol in your office to remind you of the schedule.

Target Date	Activity
Two weeks before survey distribution Date:	<b>Print and post publicity materials.</b> Post survey fliers throughout the medical office (e.g., on bulletin boards, in work areas). Promote survey throughout the data collection period.
One week before starting data collection Date:	Email the prenotification message about the Web survey. Send the invitation to all providers and staff with email access in the medical office. You can share the message with providers and 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 office intranet, provide instructions for locating and taking the survey.
Beginning of Week 2 Date:	<b>Distribute 1st reminder notice.</b> Email your prepared reminder notices and/or distribute reminder cards to all providers and staff. If you are using identifiers to track respondents, email/ distribute reminders only to nonrespondents. It may be sufficient to remind them in person to take the survey.
Beginning of Week 3 Date:	<b>Distribute paper survey packets.</b> Distribute paper survey packets to all providers and staff (or only to nonrespondents if you are using identifiers).
Near End of Week 3 Closeout Date:	<b>Calculate preliminary response rate.</b> If the rate is high enough, <b>close out data collection at the end of Week 3.</b> To increase your response rate, extend your data collection by a few days or a week and distribute 2nd reminders to all providers and staff (or only to nonrespondents if you are using identifiers). It may be sufficient to remind them in person to take the survey.
New Closeout Date:	Close Out Extended Data Collection



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